

THE NOR-WEST FARMER.

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WINNIPEG, MANITOBA, DECEMBER, 1898.

\$1 a Year,
in advance.



THE HORSE.

How to Do It.

I wish to remark, and my language is plain,
That for ads. that will pay and result in much
gain,

The Nor-West Farmer is just the "whole
thing."

If it's cattle or hogs, horses, chickens or dogs,
Your farm or your sheep, or some fence posts
or logs,

An ad. in The Farmer will make business
swing.

—With apologies to The Swine Herd.

gous growths and disease germs thrive in the dark, while direct sunshine will kill in a few hours the germs of anthrax, of pyæmia, of tubercle, and a host of other diseases. Admit light freely to the stable and dirt will disappear, horses improve in health, and the owner in cheerfulness.

The eyesight of horses may be seriously injured by dark stabling, the sudden change to brilliant sunshine producing a severe shock to the delicate apparatus regulating the size of the pupil and the quantity of light admitted to the retina of the eye. In darkness the pupil is widely dilated, in bright light it is strongly contracted, and if the change from one stable to the other is made suddenly the eye receives a painful shock. The repetition of this everyday and several times a day strains the delicate mechanism of the eye, and may result in permanent injury, producing imperfect sight, and even blindness.

Apart from the convenience of a well-

Feeding Foals in Winter.

It is highly important that foals shall be well fed the first winter, says Prof. Thos. Shaw. Then it is that they are so often neglected, and the neglect at such a time is indeed costly. Neglect at any time is costly, but never so costly as when animals are young. When they get well grown they can stand roughing it much better. They should have shelter to shield them from storms. They should be well supplied with bedding. It is better when they can have companionship, but they will get along without it. And as a matter of course the food supply will be liberal. And it should be varied. Bran, oats, hay, roots and straw can always be used with advantage in feeding. And if the grain, that is, the oats and bran, are fed in liberal supply there will be no loss from such feeding. The colt will grow strong and vigorous. But if he is put upon a short allowance of good food or on food



Parade of Live Stock at the Neepawa, Man., Fall Fair, 1898.

Hygiene in the Stable.

2. Light.

In England some centuries ago, a tax was imposed on windows, and, consequently, many of the habitations of the poor were built without any windows at all, and others had the windows walled up, the dwellers preferring darkness to taxpaying. Although it is ages since this barbarous law was repealed, yet on some farms the stables are so dark and gloomy that they might well have been built in the dark ages referred to.

A "dim religious light" may be appropriate to churches, but in stables it is out of place and conduces more to profanity than to religion. Many are the stables where the only light comes through a single pane of glass above the door, and in winter, when this is obscured with frost, the gloomy interior reminds one at feeding time of some inferno with its darkness and gnashing of teeth.

A dark stable is an unhealthy stable. Darkness and dirt go hand in hand, and their attendant is disease. Bacteria, fun-

lighted stable, its importance from a hygienic point of view can hardly be overestimated. It is false economy to save the price of a few windows at the cost of the health of the horses, and there is no reason why a stable should not be as well lighted as a dwelling house. Old stables, which have been constructed with too few windows, can be considerably brightened by the liberal use of whitewash on walls and ceiling, with the additional advantage of cleaning and purifying the surroundings.

The Journal of the Royal Agricultural Society of England gives particulars of the death of several horses that died from eating decayed potatoes. They were steamed before being used, but that was not sufficient safeguard.

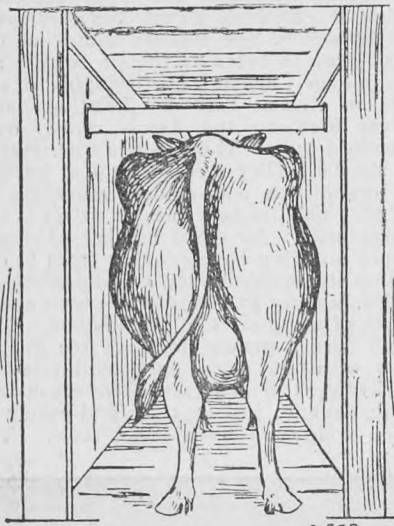
The man whose horses look best in condition, brightest in their skins and coats, and enjoy the greatest freedom from disease, is the man who is at the stable early in the morning—a full two hours before the horses are brought out to work.

that is unsuitable, he will not develop that strength which is intimately associated with the highest type of vigor. His digestion will not be of the highest type, and as a result he will never be the animal that he would have been under a more liberal system of feeding.

Some experienced horsemen would like to have the government purchase good first-class stallions, distribute them over the country, and have them stand at certain points at only a nominal fee. There are objections to this, as these animals would come in contact with private enterprise. There are more horsemen who will agree that the stallions should be charged a nominal sum as a license fee, and only horses of pure breeding and so licensed allowed to travel or receive pay for service. We want the scrub stallion weeded out. To make it complete, the scrub mares should be weeded out, too. It would be a grand good thing for this country if the scrub stallion and the greater nuisance, the scrub bull, could be forever banished.

Keeping Cows Clean.

A simple device for keeping cows clean in the stable, made by fastening a board across the stall over the cow's back just high enough not to touch her when standing at ease, is given in Farm and Home. When the cow voids excrement she arches her back; the board obliges her to step back to get the desired position and the excrement falls into the gutter. The board may be padded so as to prevent rubbing off the cow's hair and must be adjusted for each cow, according to her height and length. The plan is effective, cheap, does not interfere with the animal's comfort, and can be adjusted to any stall by a little patient study on the part of the farmer.



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New U. S. Stock Regulations.

Some time ago The Farmer called attention to the unfair treatment Canadian breeders of pure-bred stock were receiving at the hands of the United States government in the regulations governing the importation of pure bred stock into that country. The government of the U. S. seem determined to keep Canadian pure-bred cattle out, or at least make it as difficult as possible for them to enter. The Secretary of Agriculture claims that animals not pure-bred have been recorded in certain registers with the object of making them eligible for free entry into the U. S., and accordingly the Treasury Department has recently issued more stringent regulations regarding the free entry of pure bred stock. There is also given a list of record books that will be recognized as a guarantee of purity. Strange to say, not a Canadian record is mentioned. The natural inference is, of course, that Canadian records are not trustworthy, yet records are mentioned whose reliability is not very high. We can see no good explanation for this change, unless it be unreasoning jealousy on the part of certain influential registry associations whose members have been roused to do another unkind turn to Canadian breeders because some of their own countrymen have had the bad taste (?) to go across the lines to Canada to buy superior breeding stock, stock that will defeat those of American breeding at the fairs. We commend the good sense of these buyers. Canada can breed and raise good stock, and the Yankees know it. The records of many American shows in the past prove it, and Omaha adds another testimonial to the high excellence of Canadian pure-bred stock.

Their action in requiring all pure-bred animals entering the U. S. to be registered in American records is unjust, to say the

least, especially when Canada accepts American records without question. The new rule requires the owner, agent or importer to furnish an affidavit that the animal is the one described in the certificate of record and the pedigree must be produced.

The following is the form of certificate of record and pedigree to be used for imported animals:—

Pedigree of . . .	Sire	Sire
	No.	No.
		Dam
		No.
	Dam	Sire
No.	No.	No.
		Dam
		No.

I hereby certify that the above is a correct pedigree of No.; that this animal is pure bred and has been duly registered in the which is the book of record controlled by this association for the breed of

(Signed), Secretary of the

Dated at, 189

It will thus be seen that the American buying Canadian stock is put to considerable trouble. Having to make out this affidavit would be nothing if they would recognize our records. We hope the Dominion Minister of Agriculture will use his influence to have the matter set right.

The wheat inspector grades down—so does the farmer who uses a scrub sire.

Mangers, feed troughs and racks should be kept clean and fresh. No old, soiled feed should be allowed to lie in a feed trough. Clean feed troughs add to the health and thrift of the stock.

During the three months ending June 30th, 1898, England sent to South America 107 pure bred Shorthorns; Australia, 17; 1 to Finland, 1 to Sweden, and none to either Canada or the U. S.

During the next annual convention of the National Live Stock Association of America, which will be held in Denver, Col., on Jan. 24—27, 1899, there will be held a great exhibition of range cattle. A liberal prize list is being arranged.

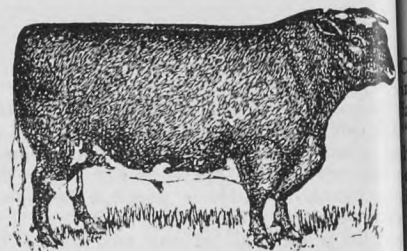
At the two days' sale of K. B. Armour's Hereford cattle, at the Kansas City yards, good prices were obtained, 113 head averaging \$384, and six times was the \$1,000 mark reached. A fine imported heifer from the herd of Her Majesty the Queen topped the sale.

The annual reports of the various Live Stock Associations of the Province of Ontario for 1897-98 have been issued in one volume. Copies can be had from F. W. Hodson, Secretary of the Cattle, Sheep and Swine Breeders' Associations, Parliament Buildings, Toronto, Ont.

The total number of cattle shipped from the port of Montreal during the season of 1898 is 99,049 head. From the port of Quebec 2,187 head have been shipped. Thus the total number of animals shipped from the St. Lawrence during the season of navigation is 101,236; but of these 5,719 head were U. S. stock in bond, leaving 95,515 head as Canada's export.

The annual winter excursion tickets to Eastern Canada are now on sale. Travellers should consider thoroughly the advantages of the different routes and get the best value for their money. The Northern Pacific will ticket you by either of the following distinct routes from St. Paul or Duluth: Via Chicago, via the "Soo" and North Bay, or via Mackinaw and Sarnia or Detroit, with a choice of several lines by each route. Via Chicago direct connection can be made, making the journey in two days, or passengers can put in the day at St. Paul and Chicago, arriving in the morning, leaving same evening, or have a longer stopover, if desired. At the same time it will give them an opportunity to travel on the finest equipped and most modern passenger trains on the American continent at no additional cost. All baggage checked through in bond with no customs examination. If you want an enjoyable and profitable trip you should call on a Northern Pacific agent and have him ticket you.

J. E. SMITH, BRANDON



J. E. SMITH,
Importer & Breeder of Clydesdale Horses

Shorthorn and Hereford Cattle.

All animals registered.
Prices right. Come and see them or write.

J. E. SMITH, Brandon, Man. P.O. Box 2202

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CALL ON OR WRITE TO

J. E. MAPLES,

Poplar Grove Farm, Deleau, Man.

(Pipestone Branch C.P.R.)

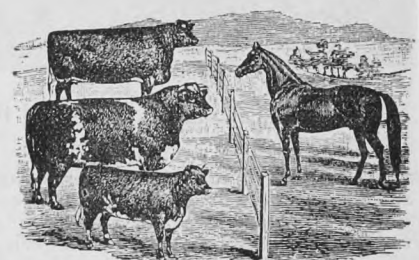


"FITZ LEE" FOR SALE.

"Fitz Lee" was bred by J. G. Snell, Snelgrove, Ont., is three years old, sound, healthy and smart on his feet. He weighed 625 pounds at 15 months old, will weigh now, in show condition, nearly 800 pounds, was exhibited 14 times at leading shows of Ontario, winning 13 firsts and one second prize. He is one of the best sons of the great "Baron Lee." I have also young stock of different ages for sale.
252 Address—J. A. MCGILL, NEPEAWA, MAN.

W. D. FLATT,

Hamilton P. O. and Telegraph Office,



OFFERS FOR SALE

Ten Choice Shorthorn Bulls

From seven to twelve months,

Twenty-five Cows & Heifers

served by imported bull, Golden Fame, —2056—; also, a few cows with calves at foot. Farm six miles from Hamilton. Catalogue sent on application. Visitors met at G. T. R. or C. P. R. if notified.

ELMWOOD STOCK FARM.

H. O. AYEARST, MIDDLECHURCH, MAN.

BREEDER OF

SHORTHORNS.

Young stock of both sexes on hand and for sale. Choicest breeding and all by imported sires. All correspondence cheerfully answered.

OAKLEY FARM.

BERKSHIRES of all ages, prize-winners; one Shorthorn Bull, got by Windsor (imp.); and 50 Plymouth Rocks for sale. Write for particulars **W. M. KING,** Canada, Assoc. 2213

Progress of the Hereford.

Writing in the Live Stock Report, John Clay, of Clay & Robinson, when describing a visit to a great Hereford breeding farm at Independence, Missouri, says:—"How much these Hereford breeders have improved their cattle in the last quarter of a century. I remember them in southern England as heavy horned, rather coarse headed, deep breasted, heavy shouldered, with a light hind end, roughish in their bones,—a sort of bullock that would have been fitted to draw a wagon from Pierre, S. D., to the Black Hills. But the type is changed. The American Hereford breeder is flexible. He can change quicker than his Shorthorn or Aberdeen-Angus neighbor. The Hereford is the grazing animal of the bovine race; that is, he can rustle more and live

barley, it was found that it required 10½ lbs. of a mixture of two parts of shorts to one of bran to put on a pound of live weight, while the same was accomplished by 9 1-10 lbs. of barley. The steers on barley ate 16 lbs. of grain and gained 1½ lbs. per day; while the steers on the mixture of shorts and bran at 14 1-3 lbs. of the mixture and gained a little over 1 1-3 lbs. per day.

Jas. Lovering, Emerson, has stock to let out to farmers to feed. He will give 7 cents a pound for all the increase that can be put on.

D. McMillan, Neepawa, Man., writes under date Nov. 28, 1898: "I would not miss The Nor'-West Farmer for a good deal, as I get more information in it than I do in all the other papers I get. Your valuable paper is worth a great deal to the farmer."

SHEEP.

Wolves and the Sheep Industry.

There can be no question that the sheep industry of the province of Manitoba is being rapidly curtailed. Many sheep owners have disposed of their flocks altogether, while others who used to keep a flock of five or six hundred have reduced it to nearly two hundred head. The reason given for this reduction in the number of sheep kept is generally laid at the door of the wolf. In order to get at the true reason for this reduction, and to see whether the wolf is to blame altogether, The Farmer has made numerous inquiries, and the answers from all parts of the province point to the wolf as being the chief barrier in the way of successful sheep



Snap Shot of a Few Prize-Winners at Oak Lake, Man., Fall Fair, 1898.

on less than any of the other beef breeds. I do not admit that he can beat the Shorthorn or the black on generous feed, but the great demand for the white-face is from the range and pasture men of the west, and breeders of this class of cattle have been sharp enough to meet that demand by changing to a great extent the type of animal. Old prejudices have been sunk and you have an animal that just about fills the bill."

The liquid excrement is the most valuable part of the droppings of stock. Don't let it run through the stable floor, and thus go to waste. Lock it up in straw until it can be removed to the fields, which should be done every day when possible.

In a steer-feeding experiment at the North Dakota Experiment Station, in which bran and shorts were tested against

F. W. Brown, the well-known stock breeder of Portage la Prairie, informs us that he has decided to visit Ontario again to purchase more stock for his farm. While east, Mr. Brown will be pleased to purchase stock for any one wanting it and bring it out with him. He has purchased a lot of stock for different parties throughout the province, and all are well satisfied with the selections he made. Any one wanting Mr. Brown to purchase stock for them should correspond with him at Portage la Prairie before Christmas. After that date his address will be Alma, Ont. He reports that "sales of live stock have been good and numerous, everything in Shorthorns that I have for sale has been disposed of. I have a few choice boars left. The whole of my stock is looking well and doing better than they ever did before. Many of my sales were made through my advertisement in your valuable paper."

raising. A summary of our returns shows that the reasons for the rapid reduction in the numbers of our sheep, in order of importance, are as follows:—

1. The destruction caused by wolves.
2. The lack of suitable fencing for sheep, and that required being quite expensive.
3. The necessity of herding, both to keep the sheep out of the crop, and to protect them from wolves.
4. The gradual reduction in the price both of wool and mutton, thus making sheep raising less profitable than in past years and less attractive than grain and cattle raising.

Besides the direct profit that is always made by those who know how to handle sheep, there can be no doubt that sheep are the most successful agents yet tried for the destruction of noxious weeds, and for that reason alone, instead of becoming fewer, they should be getting more widely

diffused, even in grain growing districts, if they can be kept without actual loss. Out of a considerable sheaf of evidence we offer the following samples from competent observers:—

R. W. Patterson, Shellmouth, a skilled sheepman, has still a flock of 250, and has lost as many as 15 to 20 in one season by wolves, and says that farmers in his district have also lost heavily in poultry. He has escaped this season himself, but others round him have had nearly their whole crop of lambs carried off by wolves, which are more numerous there to-day than any time in the last ten years. For these reasons he favors an increased wolf bounty.

Wm. Sanderson, Souris, says that fewer sheep are kept in that district than ever before, the ravages of wolves being the principal reason. Nearly every one that does have sheep wants to go out of them, mainly for that one reason. Within the past summer alone he has had more loss in sheep than would cover the whole cost for wolf bounty in his municipality. Poultry and calves are being killed in the same way, as lambs grow more scarce, and increased wolf bounty is therefore to his mind an imperative necessity. Nobody will go out of his way to kill them for \$1 a head, but a good bounty would lead to greater destruction of wolves in one year than will under the present system be killed in ten. Sheep breeding would still be profitable if this one drawback to success were suppressed by more zealous hunting.

James Laidlaw, Clearwater, says that formerly flocks of 25 to 75 sheep were kept round that section, but they are being sold out. Last year he gave certificates for over 30 wolves killed under a bounty of \$2.00. This year only five have been killed, as it is not worth while for hunters to go after them. He contends that a bounty of \$5 for bitches and \$2 for males above three months old, \$1 for all under that age would be in the best interests of the country. In a radius of two miles, \$150 worth of sheep have been killed, and poultry are going fast the same road. Better pay \$3,000 the first year for a thorough clearing up than potter along as we are now doing.

M. Young, V.S., Manitou, has, from the nature of his profession, special information covering a large tract of country. He says that formerly considerable flocks were kept; very few now, wolves being almost the sole cause of the reduction. Wolves are now more plentiful and courageous than ever before. Besides the value of the carcass and fleece, sheep are most useful in destroying weeds. If a bounty large enough to ensure a vigorous crusade against wolves were offered, their almost total destruction would soon follow. He names \$5 for females and \$2 for males as an effectual inducement for hunters to go out after them. At present a wolf has to go out of his way to get shot. The present bounty is a mere farce.

W. H. Holland, Norquay, says wolves are more plentiful now than ever before, and have caused such heavy losses that everyone there is either reducing his flocks or going out altogether. This year he lost 25 lambs, and some sheep every winter. One year 50 lambs and 12 ewes. Previous to the reduction of the bounty hunters would go to the trouble of hunting wolves and digging out the young. But for wolves, sheep would pay well.

P. B. McLaren, Clearwater, has almost the same story to tell as his neighbor, James Laidlaw. His loss last year was 30 head and this year so far 23, and he will get out of sheep as soon as possible. He reports his brother's total loss as 60 head, Wm. Grassick, Pilot Mound, 70 head, and several others he names have had to go

out of them altogether for the same reason.

Jas. Riddell, M. P. P., Rosebank, has been all along an extensive and successful sheepman, has greatly reduced his flock, and has still about 250 head. Wolves are the only obstacles he knows of, though the reduced price for wool and mutton has helped to contract the business. The reduction of the wolf bounty has helped. The reduction of the bounty he looks on as a grave blunder. Previously those who had no direct interest in sheep were tempted by the bounty to carry a rifle, and many wolves were destroyed in that way. If the bounty were increased many would be induced to make a business of hunting.

Another witness says half-breeds and Indians would, with greater inducements, soon bring in an immense number of victims.

Round Deleau about 1,000 head in all are kept, and J. E. Marples says three farmers he knows are going out of sheep, but he does not know the reason. His own experience is that he has had a number of sheep killed, and though he herds them very closely, scarcely a day passes without the wolves making attempts to kill them, rushing in on the flock and seizing a sheep within a few yards of the herder. He tried letting them run on the stubble without a herder for a day or two, and one sheep was killed and eaten within 100 yards of the house. The reduction of the bounty was a most ridiculous policy. It should have been increased, and so encourage special efforts to get the bounty. Increase the wolf bounty and tax idle dogs to pay the difference.

A correspondent suggests that the increased ravages of wolves on domestic stock may be partly owing to the great reduction in the number of wild rabbits. Wolves, like men, must live, and will, under the promptings of hunger, venture nearer in search of food.

So run the answers, but a summary of the whole of them (100 in number) will make interesting reading. The questions are given first, with a summary following.

1. Are there many sheep kept in your district?

Two-fifths of the answers say "No" or "A very few;" one-fifth, "Not so many as in former years," giving as the reason, the destruction by wolves; nearly one-third say that sheep are kept in smaller or greater numbers, while about a tenth say they have quit raising sheep on account of the wolves. A characteristic answer is as follows: "There were a good many kept in this district, but they have been disposed of on account of the wolves killing them."

2. Has the reduction in the wolf bounty made any difference in the number of sheep kept? If so, why?

In answer to this question almost one-half say "Yes," or "I think it has;" one-seventh say, "I do not think so," or "Don't know;" one-quarter say "No," or "Not in this district," but these replies were from those who do not keep sheep. Quite a number say that wolves were never more plentiful, and others that they had quit on account of the wolves. A few characteristic answers are: "No, but I think it has increased the number of wolves." "It has greatly reduced the killing of wolves; most of us are reducing our flocks." "There is one thing certain, wolves have never been so plentiful as they are in this district this season." "We can see a wolf, probably two, passing our place almost any day." "Can't say that the reduction of the bounty has caused the increase of wolves, but the wolves have, directly and indirectly, considerably re-

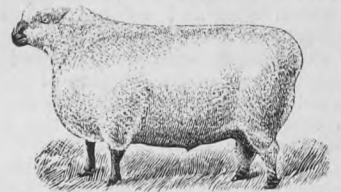
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Clydesdale, Shire and Hackney STALLIONS,

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Pure Bred Shropshire Sheep.



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Box 483, BRANDON, MAN.

Prairie Home Stock Farm,

CRYSTAL CITY, MAN.



Shorthorn and Ayrshire Cattle. Shropshire Sheep.

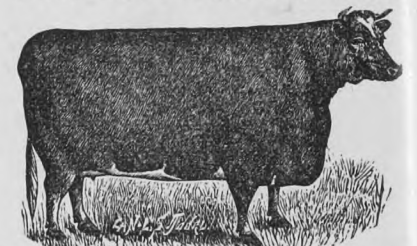
Yorkshire and Berkshire Swine.

Correspondence solicited.

2260

THOS. GREENWAY, PROP.

Shorthorn Bull for Sale.



I offer for sale TOPSMAN, the champion Shorthorn Bull at Winnipeg Industrial, 1897. I have used him on my herd as long as is prudent. He is a good stock-getter, none better, and will be a bargain for the one who gets him. I have 8 bull calves for sale, sired by Topsmen and Stanley 6th. Anyone wishing to obtain a first-class animal will make no mistake in writing.

J. G. BARRON, Carberry, Man.



I WANT TO SELL THIS FALL

50 Pure-bred Berkshires, including that prize-winning Boar, Leinster Duke, Reg. No. 3707 (certificate of registration furnished for all), a number of extra good M. B. Turkeys (from imported stock), Light Brahmas and B.P. Rock Cockerels.

Satisfactory dealing.

WM. KITSON,
Burnside, Man.

FOR SALE.

5 Grandly Bred Young Shorthorn Bulls

Ranging from 10 to 20 months old.

THICK, SHORT-LEGGED FELLOWS.

Address—ROBERT WHITE,
Prices reasonable. Wakopa, Man.

AUTHORIZED CAPITAL
500,000.00

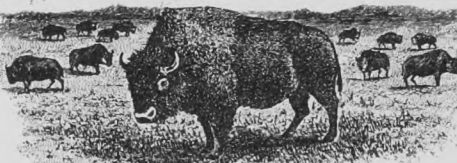
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FULL
GOVERNMENT DEPOSIT

NORTH WEST FIRE

INSURANCE

COMPANY.



INCORPORATED 1880

Act of the Legislature of Manitoba

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WINNIPEG, MAN.
1899.

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JANUARY

Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
2	3	4	5	6	7
9	10	11	12	13	14
16	17	18	19	20	21
23	24	25	26	27	28
30	31	Last qr 4th	N Moon 11th	First qr 18th	F Moon 26th

FEBRUARY

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	Last qr 3rd	N Moon 10th	First qr 17th	F Moon 25th

MARCH

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Last qr 4th	N Moon 11th	First qr 18th	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	F Moon 27th

APRIL

Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
N Moon 10th	First qr 17th	F Moon 25th			1
3	4	5	6	7	8
10	11	12	13	14	15
17	18	19	20	21	22
24	25	26	27	28	29

MAY

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Last qr 2nd	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	N Mn 9th	Fst qr 17th	F Mn Lt qr 25th 31st

JUNE

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
N Moon 8th	First qr 16th	F Moon 23rd	Last qr 29th	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

JULY

Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
First qr 15th	F Moon 22nd	Last qr 29th			1
3	4	5	6	7	8
10	11	12	13	14	15
17	18	19	20	21	22
24	25	26	27	28	29
30	31				

AUGUST

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
N Moon 6th	First qr 14th	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	F Moon 20th	Last qr 27th

SEPTEMBER

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
N Moon 4th	First qr 12th	F Moon 19th	Last qr 26th		1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

OCTOBER

Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
1	2	3	4	5	6
8	9	10	11	12	13
15	16	17	18	19	20
22	23	24	25	26	27
29	30	N Moon	First qr	F Moon	Last qr

NOVEMBER

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
N Moon 3rd	First qr 10th	F Moon 17th	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	Last qr 27th	

DECEMBER

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
N Moon 2nd	First qr 9th	F Moon 16th	Last qr 23th		1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

THE NORTH-WEST FIRE INSURANCE COMPANY.

HEAD OFFICE: WINNIPEG, MAN.

P. O. BOX 1249.

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ERNEST M. WILLIAMS.

USEFUL TABLES AND INFORMATION

WEIGHT OF GRAIN TO THE BUSHEL.

Pounds.	Pounds.
Wheat	60
Indian Corn	56
Rye	56
Peas	60
Barley	48
Oats	34
Beans	60
Clover Seed	50
Timothy Seed	48
Buckwheat	48
Flax Seed	60
Hemp Seed	44
Blue Grass Seed	14
Castor Bean Seeds	40
Potatoes, Turnips	60
Carrots, Parsnips	60
Beets, Onions	60
Salt	56
Dried Apples	32
Dried Peaches	33
Malt	36

AVOIRDUPOIS.

15 Drams	1 Ounce
16 Ounces	1 Pound
14 Pounds	1 Stone
25 Pounds	1 Quarter, Canadian
28 Pounds	1 Quarter, English
4 Quarters	1 Hundredweight
20 Hundredweight	1 Ton
2000 Pounds, Canadian	1 Ton
2240 Pounds, English	1 Ton

APOTHECARIES.

20 grains make 1 scruple
3 scruples make 1 dram
8 drams make 1 ounce
12 ounces make 1 pound

TROY.

24 grains make 1 dw.
20 dwts. make 1 ounce
12 ounces make 1 pound

DRY MEASURE.

2 pints make 1 quart
4 quarts make 1 gallon
2 gallons make 1 peck
4 pecks make 1 bushel
36 bush. make chaldron

LIQUID MEASURE.

4 gills make 1 pint
2 pints make 1 quart
4 quarts make 1 gallon
9 gallons make 1 hkin
36 gallons make 1 barrel
63 gals. make 1 hoghead

LONG MEASURE.

12 lines	1 inch
4 inches	1 hand
12 inches	1 foot
3 feet	1 yard
6 feet	1 fathom
5½ yards	1 rod or pole
40 rods	1 furlong
8 furlongs	1 mile
3 miles	1 league
69½ miles	1 degree
1760 yards or 5280 feet	
1760 yards or 5280 feet	
6075.81 ft. 1 nautical mile	

LAND SURVEY MEASURE.

7.92 inches	1 link
100 links	1 chain
1 chain	66 feet
10 sq. chains	1 acre

CLOTH MEASURE.

2½ inches	1 nail
4 nails	1 quarter
3 quarters 1 Flemish ell	
4 quarters 1 yard	
5 quarters 1 English ell	
6 quarters 1 French ell	
37 inches .. 1 Scotch ell	

SURFACE OR SQUARE MEASURE.

144 Square Inches equals 1 Square Foot, or 1 sq. ft.
9 Square Feet equals 1 Square Yard, or 1 sq. yd.
30¼ Square Yards equals 1 Square Rod, or 1 sq. rd.
40 Square Rods equals 1 Rood, or 1 r.
4 Roods equals 1 Acre, or 1 a.
640 Acres equals 1 Square Mile, or 1 m.

Note.—A surface is that which has length and breadth without thickness.

CUBIC OR SOLID MEASURE.

1728 Cubic Inches (cu. in.) equals 1 Cubic Foot, or 1 cu. ft.
27 Cubic Feet equals 1 Cubic Yard, or 1 cu. yd.
128 Cubic Feet equals 1 Cord, or 1 cd.

Note.—A cube is a solid bounded by six equal squares. A cord is a pile of wood 4 feet wide, 4 feet high, and 8 feet long.

COUNTING.

12 Units make 1 Dozen
12 Dozen make 1 Gross
12 Gross make 1 Gt. Gross
20 Units make 1 Score
24 Sheets make 1 Quire
20 Quires make 1 Ream
196 Pounds of Flour make 1 Barrel
200 Pounds Pork or Beef make 1 Barrel
100 Pounds of Grain or Flour 1 Cental
100 Pounds of Dry Fish 1 Quintal
100 Pounds of Nails 1 Keg

TAXES.

To find the rate of Taxation, the required tax and the value of taxable property being known:—

RULE.—Divide the required tax by the value of the taxable property, the quotient is the rate of taxation.

The required tax divided by the rate gives the valuation.

To find the amount of any person's taxes:—

RULE.—Multiply the value of the property by the rate.

LAND MEASUREMENT.

Ascertain the contents of the field or plot in square feet and divide by 43,560 for the acres; or in square yards and divide by 4,840; or in square rods and divide by 160.

One mile is 5,280 feet in length, or 1,760 yards, or 320 rods. A square mile or a section of land is 640 acres, and by Dominion Government Survey is subdivided into four quarters of 160 acres each, or sixteen legal sub-divisions of 40 acres each, and are numbered as shown in diagram.

SECTION.

N.W. ¼	N.E. ¼
S.W. ¼	S.E. ¼

Divided into Quarter Sections

SECTION.

13	14	15	16
12	11	10	9
5	6	7	8
4	3	2	1

Divided into Legal Sub-Divisions

To describe land in a deed it is only necessary to give the number of the Section or the quarter or the half, as the case may be, and the Township and range in which it is situated. To describe less than a quarter section give the legal sub-division, number of Section, Township and Range.

EXAMPLES.

For 640 acres write "all of Sec. 6, Tp. 15, R. 12, West of 1st Meridian."

For 160 acres write "South-West ¼ of Sec. 6, Tp. 15, R. 12, West of 1st Meridian."

For 80 acres write "Legal Sub-divisions 3 and 4 of Sec. 6, Tp. 15, R. 12, West of 1st Meridian."

For 60 acres write "Legal Sub-divisions 4 and West half of 3 of Sec. 6, Tp. 15, R. 12, West of 1st Meridian."

For 40 acres write "Legal Sub-division 4 of Sec. 6, Tp. 15, R. 12, West of 1st Meridian."

For 10 acres write: "S.W. ¼ of Legal Sub-division 4 of Sec. 6, Tp. 15, R. 12, West of 1st Meridian."

SQUARE ACRE.

A square acre contains 69.57 yards on each side.

GRAIN TABLE.

The practice of buying or selling grain, etc., by the 100 pounds, or the cental system, is common in many places.

To find the value per cental (100 lbs.) when the price per bushel is given.

RULE.—Set down the price per bushel; multiply by 100 (remove the decimal point two places to the right) and divide by the number of pounds in the bushel.

To find the value per bushel when the price per cental (100 lbs.) is given.

RULE.—Set down the price per cental; multiply by the number of pounds in the bushel, and divide by 100, remove the decimal point two places to the left.

To reckon the cost of hay or anything of which 2,000 pounds is a ton.

RULE.—Multiply the number of pounds by half the price per ton, and divide by 1,000 (remove the decimal point three places to the left).

To estimate the amount of hay.

Five hundred and twelve cubic feet to a ton in the mow is what is reckoned in Eastern Canada and the States, and no doubt approximates as closely as possible to a correct standard, the number of cubic feet required for a ton varying a little on account of the different degrees of pressure to which the hay has been subjected, and also with the quality of the hay as regards fineness.

A load of hay 16 ft. long, 8 ft. wide and 4 ft. high contains 512 cubic feet.

To measure grain in a box or bin.

RULE.—Level the grain; ascertain the space it occupies in cubic feet by multiplying the length, width and depth in feet together; multiply the number of cubic feet by 8 and divide by 10 and you will have very nearly the exact number of bushels.

INTEREST.

To find the interest on any amount, at any per cent., for any length of time.

First, reduce time to run to months and to of a month, divide the number of days over month by three, then add to the number of months in decimal form.

Second, move the decimal point between dollars and cents in the principal two places to the left, divide this amount by twelve and multiply by rate per cent.; multiply this amount by the number of months as found above, and the product be the answer.

Example.—\$360.00 at 7 per cent. for two years months and 18 days.

Solution.—2 years, 5 months and 18 days equals 29.6 months.

(move decimal point two places to left, which gives interest 1 yr. at 1 per cent.)
(divide by 12 which gives int. for 1 mo. 1 per cent.)
(multiply by the rate per cent.)

2.10 = Interest on principal for one month.

If \$2.10 for one month, for 29.6 months it will be 29.6 times \$2.10, or \$62.16.—Answer.

ANOTHER METHOD.

A simple rule for accurately computing interest at any given per cent. for any length of time.

Multiply the principal (amount of money at interest) by the time reduced to days; then divide this product by the quotient obtained by dividing 360 (the number of days in the interest year) by the per cent. of interest, and the quotient thus obtained will be the required interest.

ILLUSTRATION.

Require the interest of \$462.50 for one month and eighteen days at 6 per cent. An interest month is 30 days; one month and 18 days equals 48 days; \$462.50 multiplied by 48 gives \$222,000; 360 divided by 6 (the per cent of interest) gives 60, and \$222,000 divided by 60 will give you the exact interest, which is \$3.70. If the rate of interest be the above example was 12 per cent, we would divide the \$222,000 by 30 (because 360 divided by 12 gives 30), if per cent, we would divide by 80; if eight per cent, by 45, and in like manner for any other per cent.

LEGAL BREVITIES.

If a note be lost or stolen, it does not release the maker, he must pay it.

An endorser of a note is exempt from liability if not served with notice of its dishonor within 24 hours of its non-payment.

Notes bear interest only when so stated.

Each individual in partnership is responsible for the whole amount of the debts of the firm.

It is a fraud to conceal a fraud.

It is illegal to compound a felony.

Signatures in lead pencil are good in law.

A receipt for money is not legally conclusive.

The acts of one partner bind all the others.

Ignorance of the law excuses no one.

WEIGHTS AND MEASURES.

- 2½ Teaspoonfuls make one tablespoonful.
- 4 Tablespoonfuls make one wine-glassful.
- 2 Wine-glassfuls make one gill.
- 2 Gills make one teacupful.
- 2 Teacupfuls make one pint.
- 4 Teaspoonfuls salt make one ounce.
- 1½ Tablespoonfuls granulated sugar make one ounce.
- 2 Tablespoonfuls flour make one ounce.
- 2 Cups or 1 pint granulated sugar will weigh about one pound.
- 1 Scant quart wheat flour about one pound.
- 10 Ordinary sized eggs about one pound.
- A piece of butter the size of an egg about 1½ ounces.
- 2 Cups of butter one pound.

MEASUREMENT OF LUMBER.

A standard board is one which is twelve inches wide, one inch thick and twelve feet long; hence a standard board contains twelve square feet.

RULE.—The length of the board, plank, scantling or other piece of lumber in feet, multiplied by the breadth in inches, multiplied by the thickness in inches and divided by twelve gives the contents in square feet.

Agents wanted in unrepresented districts

When writing to Company always give Policy No.

duced the number of sheep kept." "Reduction of the bounty made it not worth while hunting them by people not interested in poultry and sheep."

3. What other causes have had an effect in reducing the number of sheep kept?

Two-fifths mention fencing as a cause, while one-quarter say there is no other cause than wolves. Over one-seventh mention low prices, and another seventh say that herding and the extension of grain growing make it too much trouble to keep sheep. Some of the answers are: "Too much crop, requiring very close herding." "The want of proper fencing, as it won't pay to herd a few." "To a small extent the difficulty of fencing them out of the crop." "Low prices for mutton and wool of late years have not been such as to warrant a farmer going to much extra trouble to keep sheep, so long as grain and cattle pay as well as they have been doing."

4. Have you had any sheep killed by wolves?

Two-thirds of the answers give a ready "Yes," while less than a quarter say "No," and these are the ones who, of course, do not keep sheep. Some of the answers are: "Lots of them." "Some every year." "Two lambs in 13 years."

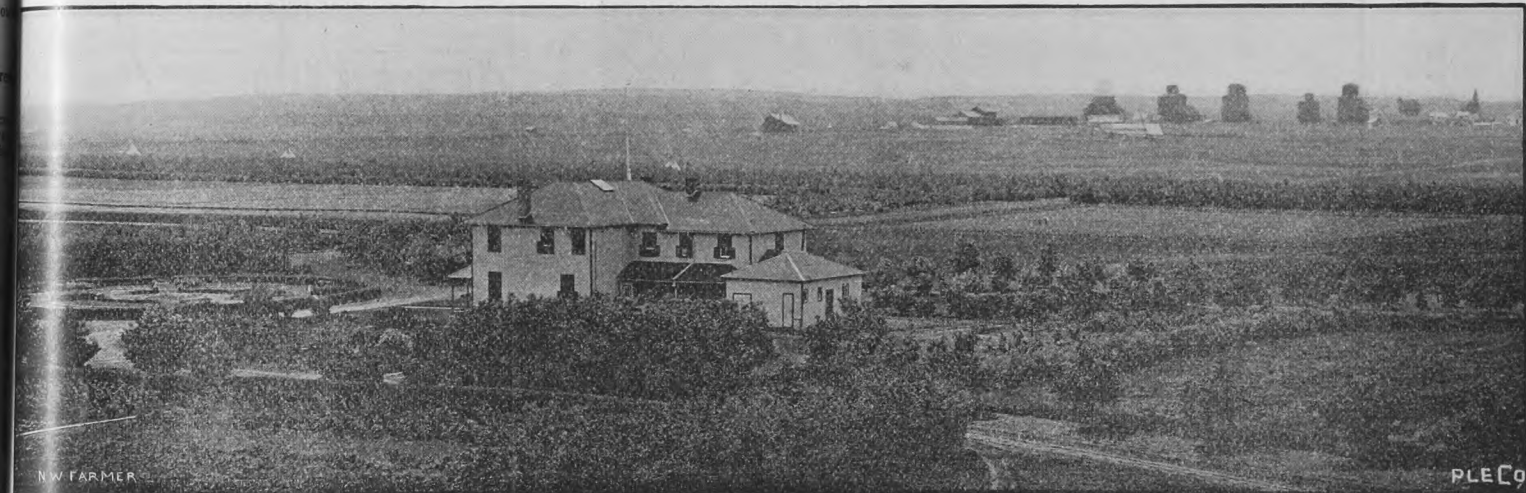
raise the bounty; one-seventh say, "Tax the dogs;" and a ninth, "Don't know that the Government can do anything." One man wants a bonus for a wolf-proof fence, others want a better market, and others carding mills encouraged. Other ideas: "The Government should supply sheep raisers with wolf hounds." "The Government should encourage some person or persons to keep wolf hounds in each district to hunt them down." "Raise the bounty to \$5 on females and \$2 on males." "Raise the bounty; it proved successful in the east, and should here." "Fix a bounty large enough to secure the total extinction of the wolves, say, \$5 for females and \$2 for males." "Make the bounty sufficiently high so that it will induce people to slaughter them." "Sheep raising don't need any aid; it will stand on its own merits if this drawback were removed." "Raise the wolf bounty on females to double that of males, and tax dogs to pay the bounty."

7. Would a more liberal wolf bounty be any aid?

Over three-quarters of our correspondents believe that an increase of the wolf bounty would be an advantage, while only an eighth are doubtful, and the balance don't express an opinion. The reasons given why an increased bounty would be

them before, and have caused such losses that very many, if not most, of the sheep breeders are getting rid of their flocks, or only keeping enough for their own use." "I had 100 and am selling to the butcher until I reduce to 10. If there were no wolves, I would keep all I could, as at lower prices than ever I have sold for they would still be profitable." "Wolves are very destructive on fowl; will have to give up raising turkeys; usually raise about 50 a year, but the wolves now get the profits. The half of the flocks of poultry in this neighborhood have been killed by the wolves." "In addition to killing, injuring and scaring sheep, the wolves have killed some young calves, and over 200 head of turkeys and other poultry in this immediate neighborhood." "I have kept sheep for 12 years. Last year we had up on the farm about 1,000 head, and have sold all out, principally because of the wolves." "Kept sheep for 15 years; never had any killed till this summer; wolves got so bold that the sheep had to be kept shut up day and night." "Wolves are more numerous in this district this season than they have been for the last ten years."

No one can read the foregoing without coming to the conclusion that the wolves are doing a serious damage to the live stock of the country. Bad as it has been,



View on the Experimental Farm, Indian Head, Assa.,
Showing Grain Elevators at Indian Head in the background.

"Have lost as high as 15 and 20 in a season." "For a number of years lost more than one-half of my lambs every year." "I have had as many as 30 lambs killed by one wolf at one time." "Yes, all the profit and more, consequently went out of the business." "Only one, my neighbors many," and one man, who must want to get even with some city sport, says, "More shot by city sports."

5. Have idle dogs destroyed any sheep?

The dogs have come in for a severe arraignment. Over one-third say they have had sheep worried by dogs, while the balance say they have had none. Samples: "Yes, a few." "One this year." "More than by wolves." "Some every spring or winter." "We had five killed by one dog." "In fifteen years only known one case in the neighborhood." "Dogs are as bad as wolves, had my flock worried yesterday." "One sheep and several lambs in as many years, but there is much indirect loss through the sheep being worried and run by stray dogs."

6. What can the Government do to aid or encourage sheep raising?

The replies are various, but over one-half suggest a more liberal bounty or to

desirable are: "Many would devote considerable time to hunting wolves and digging out the young." "Yes, because then wolves would be hunted designedly, while now they have to go out of the way to get shot." "Hunters make a business of finding their breeding places; at \$2 they barely get pay for their time, at \$5 they would." "The raisers of poultry should join with the sheep raisers in demanding the increase of the bounty, as more destruction is done to poultry than to sheep." "There are hundreds, and I may say thousands, of dollars worth of poultry destroyed every year by wolves. I have lost this year \$30 worth at least, and I have heard of many of my neighbors that have lost all of their fowl, and there is no doubt that the wolves destroy thousands of prairie chickens as well each year."

8. Are wolves the greatest hindrance to successful sheep raising?

Five-ninths of the answers say "Wolves only," while two-ninths say "No," and over one-fourth think the lack of close fences the greatest hindrance to successful sheep raising. Some sample answers: "Yes, yes, yes." "Some farmers have lost their entire crop of lambs." "Sixty per cent of our poultry were killed by wolves this season." "They are more plentiful this year than I have ever seen

this destruction is only beginning. The great increase in the number of wolves, due to less hunting of them owing to the reduction of the bounty, means that there are more of them to feed, and what has sufficed for the few in the past is not sufficient for the increased numbers, consequently they have grown more bold. Poultry of all kinds have disappeared by the hundred, as well as sheep and lambs. The wolves have grown more bold through hunger and more courageous through success. Calves are not too good for them; the next thing we will have them attacking grown cattle, as they are now doing in Montana. It should be made worth while for those who have a natural liking for hunting, and the Indians and half-breeds, to spend their time hunting down these pests of the farm. This can best be done, we think, by the Government raising the bounty on wolves to such a figure as will induce hunters to spend time hunting them. Owing to the great increase in the number of wolves the first year's work under an increased bounty will be expensive. We see no reason though why a dog tax of some sort could not be devised to help pay for the increased bounty. This is a matter to which we hope our Legislature will give their earnest attention during the coming session, and farmers who have suffer-

ed by the destruction of their sheep and poultry cannot too early take the opportunity to bring before their representatives in the Local House the importance of prompt and vigorous action. Our columns are open for discussion on this matter, and we would ask our correspondents to be as brief as possible.

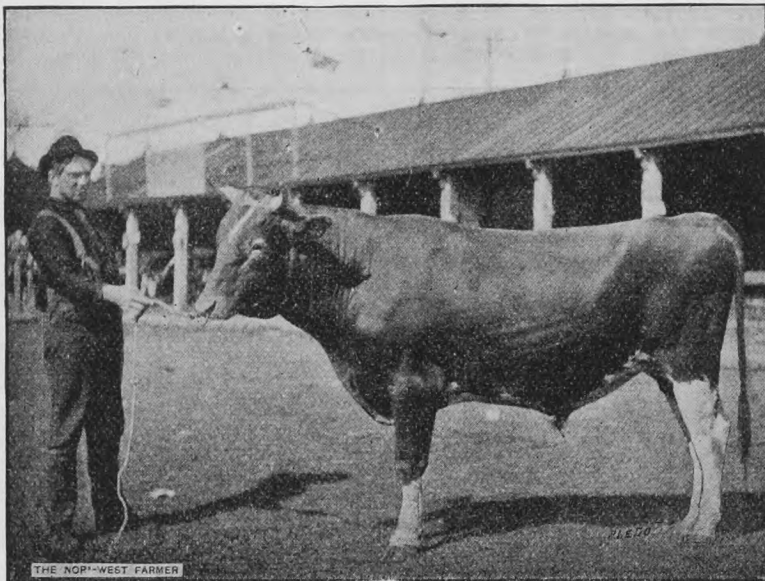
Have salt constantly before sheep.

Don't crowd the sheep at the feeding rack. Give them plenty of room to work.

On the other side of the line farmers are falling over each other in their scramble for sheep.

Farmers should recognize the fact that a ten-acre field devoted to sheep will return more hard cash to the owner than the same field devoted to cattle.

The best way to learn how to care for a larger flock is to start with a small one; then by carefully watching and studying the animals they will teach you rapidly and well.



Guernsey Bull, King of Maple Hill (4583), owned by William Butler & Son, Dereham Centre, Ont.

This animal won Silver Medal at Toronto, and Diploma at London and Ottawa, and won first place whenever shown as a yearling.

W. G. Rogers, Carberry, says that he raised 27 lambs from 23 ewes this year. This is more than doubling his flock in one year. He finds his sheep stand the climate well and return their cost quicker than any other farm animal.

A few roots will prove valuable as a noon-day feed, either for lambs or ewes. Food of this kind keeps the digestive organs in condition and improves the appetite of the animal. Sprinkle a little bran or a few oats over the roots.

Two million five hundred thousand head of sheep are annually fed and fattened on grazing meadows and fields within 50 miles of Chicago. These immense grazing lands are owned by the railroad companies, who erect shearing and feeding sheds on them containing every facility for handling sheep.

It is said that no sheep is so courageous as the Dorset, and that a ewe will fight for her lambs against any dog. The Dorset is very prolific, often bringing three lambs; they are large and hardy, and are popular because of their qualities for both wool and mutton, as well as for their pugnacious habits.

SWINE.

Cooking Food for Hogs.

Many farmers believe in cooking food for hogs, some even going so far as to cook all their food. The results of numerous experiments in Europe show that, as a rule, steaming or cooking feed, especially coarse food for cattle, adds nothing to its value. At a number of experiment stations on this side of the Atlantic, experiments have been tried with cooked grain for hogs, and at perhaps no place has a greater number of trials been carried out than at the Wisconsin Experiment Station. Prof. Henry thus sums up the results of his work in a recent issue of the Breeder's Gazette: "All of these experiments, except one or two, show losses from cooking grain for swine, and where there was a gain it was very small indeed—not over 3 per cent. in favor of that process. This is less than the cost of cooking. Potatoes cannot be fed to swine in any quantity without cooking, and often grains which are injured or damaged

in some way should first be cooked before feeding."

Warming feed must not be confused with cooking it. An occasional feed of cooked food will be relished by way of variety. Warming or soaking the food may make it more comfortable or agreeable to the palate, and perhaps make it more easily digestible. In this way warming the feed may be advantageous, for increased comfort will aid in economizing the food or increasing the gains.

Where grain is hard it should be ground very fine. Small hard grains particularly should be ground, otherwise they will pass through the swine undigested, and thus go to waste. If oats are fed in any quantity, they should be ground, and for young pigs the hulls should be sifted out. Older animals do not mind the hulls so much. Many feeders find a few oats scattered over the floor are picked up and well relished by pigs.

For damaged grain, too soft to grind, there is no better plan than thoroughly soaking it before it is fed. It is all the better and the swine will be more sure of getting all the good out of it, if it is thoroughly mashed before being fed.

AYRSHIRE CATTLE

AND

Fancy Poultry.



CHOICE EXHIBITION & BREEDING STOCK FOR SALE.

Winners at Toronto Industrial, London and Ottawa, 1898. A grand lot of Chicks, including L. Brahms, P. Cochins, S. G. Dorkings, Ho dars, R. C. White and Brown and S. C. White and Brown Leghorns, Golden, Silver and W. C. Black Polands Silver Spangled and G. Pencilled Hamburgs. Also Aylesbury and Rouen Ducks and Bronze Turkeys.

For Particulars write—

2457

W. STEWART & SON, Menie, Ont.

Holstein Bull Calves

OF THE FAMOUS TEAKE STRAIN.



If you want one, write. Can be crated and sent to any part of the Northwest.

Address—JAMES GLENNIE,

2455

Box 95, A. DEN, MAN.

TREDINNOCK HERD

OF

AYRSHIRES.



Winners at the leading fairs of 1898. Awarded at Toronto, London and Ottawa—16 firsts, two sweepstakes, silver medal and other prizes, in all numbering 34, among which were seven herd prizes, four being firsts, and first for four calves, bred and owned by exhibitor.

ROBERT REFORD, Proprietor, JAS. BODEN, Manager.
2458 ST. ANNE DE BELLEVUE, QUE.



Forest Home Farm

Shorthorns, Berkshires, Yorkshires and B. P. Rocks. A few choice Bull Calves by Manitoba Chief, Oxford Imp., and Village Boy 10th. Young Berkshire Sows, Yorkshires, both sexes. We are offering this season a beautiful lot of Cockerels from imported stock. Prices low.

ANDREW GRAHAM,

Carman Stn., C.P.R., Roland, N.P.R. Pomeroy P.O. 2454

PURE BRED AYRSHIRE CATTLE.

Imported from Scotland, of the very best prize winning milking families, possessing large size, robust constitution, beautiful udders and large teats. Gold Medal herd from 1893 to 1897 at leading Canadian shows. Great prize record. Not been exhibited since. Choice Tamworth Swine—The bacon pig of the day. Stock all from noted prize-winners. Choice Collie Dogs—Imported and home bred. Won all leading prizes in Canada up to 1897, also second at New York Bench Show in 1897.

Stock all ages for sale.

R. G. STEACY, Importer and Breeder, Box 720, BROCKVILLE, ONT.

GLENMURRAY STOCK FARM,

BEULAH, MAN.

Nine pedigreed Poland China Pigs, three months old, for sale cheap. They are bred from prize-winners at Winnipeg Industrial Exhibition.

Also my Stock Bull, JOHN L. SULLIVAN, pure bred pedigree, Shorthorn, good getter, seven years old. Correspondence solicited.

2452

W. A. DOYLE.

A. ELLIOTT, Pond Mills P.O., Ont.

Has for sale Oxford Sheep, Collie Dogs, White Holland, Bronze and Narragansett Turkeys, Embden Geese and Pekin Ducks, all of the best strains.

When writing advertisers, kindly mention The Nor'-West Farmer.

Keep the Hogs Clean.

As a general thing, there is no more repulsive and offensive place around the farm buildings than the hog pen. It is a wonder to us, sometimes, how hogs can live and be healthy in the abominable places in which we frequently find them. People seem to go upon the principle that the hog is a filthy animal, consequently any kind of a place will do for him—the dirtier the better. By nature the hog is not the dirty, filthy animal that many ignorantly suppose him to be. We are satisfied that he will appreciate care, attention, and cleanliness just as much as those animals we deem much more cleanly, and for whose welfare we watch more carefully.

Horse and cow stables are cleaned out every day and fresh bedding supplied. But what farmer thinks of cleaning out the hog pen daily? They are few and far between. If the pens are cleaned out once a week the penned-up hogs think themselves very fortunate. We believe it is just as necessary to keep the hog pen clean as it is either the horse or cow stable. We have seen pens in our travels around the country in such a condition that we wondered how the hogs could live in them. It is strange how people can become accustomed to any kind of conditions. It is no great task to keep a hog

How to Get Most Out of the Hog.

"I want to say to every man who is engaged in the hog industry, or any other industry on the farm, don't keep any kind of animals unless you like them: if you have a white hog and don't like him, kick him out and keep the black one, if you like him. I don't believe any man can succeed in any business unless he has a love for it." These words of S. H. Todd at a Wisconsin Farmers' Institute strikes the very note of success in hog raising as well as in any other business. You may "like feeding hogs as well as any other work," but that is not the spirit in which to go at it to make the greatest success. To make a thorough success of hog raising, it must not be looked upon as work: it must have your interest so thoroughly that you make it more of a pleasure. "The man who curses his luck at having to stay at home from a 1st of July picnic or horse race because 'that confounded sow is due to farrow that day' is not the man who is going to make a reputation for himself as a hog-breeder."

Prof. John A. Craig, of the Iowa Experiment Station, explains in an exchange why a hog succumbs so unresistingly when overheated. The man or horse when overheated soon has the surface of

Jas. Robertson, Beaver Brand Farm, Glendale, Man., has a few Poland China swine for sale from imported stock.

H. W. White, Carberry, recently purchased the 2-year-old roan Shorthorn bull, Austin Lad, bred by Jas. Leckie, Austin, Man.

H. Laycock, Rosebank, Man., offers young stock of both Shorthorn cattle and Poland China swine for sale at right prices.

McGill Bros., Carroll, Man., are offering a number of registered Shorthorns, both male and female, for sale. See their ad. in this issue.

Robert Beith, the well-known Hackney breeder of Bowmanville, Ont., recently sold a team to Lord Minto, the new Governor-General, for \$1,000.

Andrew Elliott, Pond Mills, Ont., has a new advt. in the December issue of The Farmer. Anyone wanting a good Collie dog would do well to get his prices.

Look over the advertisements of the breeders of pure bred live stock in this issue. We believe all of our advertisers are reliable. If you are a breeder and have stock for sale, let the people know of it through the columns of The Nor'-West Farmer. It pays others: why not you?

NW FARMER

PLECO

Test Plots at the Experimental Farm, Indian Head, Assa.

clean if the pen is properly constructed and the cleaning done every day. The floor of every hog pen should slope to one side, so as to afford good drainage, thus securing dry quarters. Care should be exercised in feeding to see that too much food is not given at a time, and any food left by the hogs should be cleaned out of the trough before another lot of feed is given. This will aid in keeping the pens clean and the hogs healthy. Care for the health and surroundings of the hogs will cause them to make more rapid gains and thus pay for any extra labor that may be spent upon them.

One pound of oil meal, well cooked, should be added to every 100 pounds of buttermilk when fed to swine in large quantities; it will highly increase its feeding value.

Pig-farming pays where no feed has to be bought, or even where only a portion has to be purchased. But where the mistake is made is to attempt to carry on the occupation where all food has to be bought. So it is found that dairy folk make off a lot of pork to a profit, as they have skim milk or buttermilk, and these fluids prove excellent for making really good quality of pork, especially when some grain is fed along with them.

his body covered with perspiration, and the evaporation begins at once to reduce the temperature. Nature has made no such provision for the relief of the hog. He fails to explain, however, why the dog, which is similarly unprovided, does not also succumb to the heat. The cow perspires on the end of the nose and will so surely be overcome by the heat as the hog. I am no scientist, but I would like to know if there is anything in the old saw, that "what is sauce for the goose is also sauce for the gander." In other words, if this is the cause of the death of the hog, why does it not cause the death of the dog?

Among the Breeders.

A. D. Gamley, Brandon, has sold a fine Leicester ram to W. G. Rogers, Carberry.

W. Lynch, Westbourne, recently sent one of his fine young bulls to the Yorkton district.

When writing to breeders, kindly mention having seen their ad. in The Nor'-West Farmer.

Geo. H. Harris, Lynden, Ont., breeder of registered Berkshires, is offering young stock for sale.

Sir Walter III, the 3-year-old Shorthorn bull, the property of A. & J. Morrison, Carman, Man., is for sale.

The sale of stock and implements belonging to J. H. Haslam, Headingly, took place on Nov. 28, and in spite of a continuous snowfall went off briskly. Excellent prices were made for everything offered. About 100 head of cattle were offered, mostly well-graded Shorthorns, and prices ranged from \$20 to \$50, according to age and quality. One more proof that blood will tell.

H. O. Ayearst, Middlechurch, Man., reports that his cattle have gone into winter quarters in the very best breeding condition. Starlight (one of Hon. J. Dryden's breeding) and Crimson Chrysanthemum have each dropped fine bull calves lately. Both are by Mr. Lister's grand old stock bull, Gravesend's Heir 2nd (imp. in dam) 6373. Among the young stock advertised in this issue are two extra good young bulls, one out of Crimson Queen 21275, by President (imp.) 6412 (56301). He is a beautiful roan and good enough to head any herd. The other is out of Crimson Gem 18470, and got by Gravesend's Heir 2nd. This calf is white, and although his breeding is gilt edge, his color will make his price lower. I may say that the dams of these young bulls are exceedingly good cows. Crimson by Warfare (imp.) 6452, (56712), and Crimson Gem by the Famous Indian Chief (imp.) 11108, (57485.)

Among the Breeders.

W. S. Lister, Marchmont Stock Farm, Middlechurch, has a change of advertisement in this issue. He is offering a few young Scotch-bred Shorthorn bulls, also Berkshires.

At the sale of pure bred Clydesdales, held by Col. Holloway, the noted Illinois horse breeder, R.R. Byerly, Cook's Creek, bought the stallion Damascus Blade and two mares.

John Norsworthy, Kola, Man., has sold from a grade cow, 17 years of age, \$1,380 worth of her progeny, besides killing three of them and giving two away. Who can estimate the whole value of a good cow?

A. & D. Brown, of the Walnut Grove Farm, Iona, Ont., advertise five Shorthorn bulls from seven months to two years of age. Stock bulls (imp.) Warfare, 56712, (imp.) Royal George, 17106, and Centennial Isabella, Scotland Yet, 23375, also a few heifers.

Royal Standard, the Irish Hackney stallion, owned by Graham Bros., Claremont, Ont., has been sold for \$7,000 to A. W. Montgomery, Scotland, to go back to the old country. He was the champion sweepstakes horse of all the light harness horses at the great Chicago horse show.

R. McKenzie, High Bluff, writes:—"I never had as good a lot of brood sows as at present. I am using three grand stock boars, and will be able to supply persons wanting pairs or trios not akin, of which I expect a good lot next spring. I have received a number of spring orders already for pigs fit for shipment at two months old."

Robt. White, Wakopa, Man., writes:—"The young bulls that I am offering for sale in this issue of The Farmer are a grand lot. One is by Lucifer 2nd (18206), 20 months old, the other four are by Crimson Chief (24057), by President (imp.), dam Crimson Gem, by Indian Chief (imp.) and are all thick, short-legged fellows, ranging from 9 to 11 months old."

At the Kansas City Hereford sales, held on Nov. 15 and 16, the very fancy price of \$1,400 was paid for the 1st prize bull at the Omaha Exposition. Another of the same age made \$505. In all, 97 head of males and females were offered, and the lot made an average of \$278. Same time and place, H. C. Duncan's Shorthorn bull, Baron Dudding, made \$1,000, and his 14 head of Scotch Shorthorns averaged \$350.

Wm. Sharman, Souris, Man., writes:—"Following is a list of sales made since the Souris fair: The 1st prize bull calf, Ridgewood, 922, sire Valentine, 734, dam Countess of Ridgewood 766, by Cronkhill Chief, 490, to John B. Wilcox, Wetaskiwin, Alta. This chap went through in splendid shape (882 miles) without anyone in charge. John Town, Towner, N.D., three bull calves; Jas. Robertson, Glendale, one heifer calf; Francis B. Miller, Solsgirth, one bull calf and one heifer."

J. M. Waller, Carman, has sold his Shorthorn stock. The sale went off nicely; there was a good attendance of buyers, the bidding was spirited, especially for the young stock, and on the whole we may say the sale was very successful. Among the sales were the following: A. Graham, Pomeroy, secured two good cows, Josie and Isabel, for \$95 and \$78 respectively. D. Pritchard, Carman, got Maud, a first prize 2-year-old heifer, for \$101, and a calf a week old for \$25. The cow, Josephine at \$80 and a calf at \$40, went to H. Pritchard. Other calves, a week old, went for \$25 to J. Knoggs, and \$36 to Rev. F. C. O'Meara.

W. D. Flatt, of Hamilton, whose advertisement of Shorthorn cattle will be found in our columns, has recently sold to John Ramsay, Priddis, Alta., six head from his Trout Creek farm. The shipment consists of Duchess of Lincoln 2nd, 25626, by Ingram out of an imported cow, with a 6-month-old calf at foot; Roan Duchess 62nd, 25631, by Waterloo Duke 26th, and out of Roan Duchess 35th, with a six months' old calf at foot; Red Empress 3rd, by Kinellar 2nd, and out of Red Empress, and the ten months' old bull, Trout Creek Hero, a good, straight, well-built calf that won three firsts in Ontario this fall. The bull is sired by Duncan Stanley, and he by Prince Royal, a first prize winner as a calf at the Chicago World's Fair, and two firsts in Toronto as best bull. This is a shipment which does credit to the quality of the Trout Creek herd, and will be a valuable acquisition to the pure bred stock of Alberta. Mr. Flatt's herd has many animals of superior merit and breeding. His herd is headed by the best and highest priced animal sold at the sale of imported bulls made by John Isaac, Markham, last spring. Crimson Knight, the first prize calf at the Winnipeg Industrial, came from this herd.

Wm. Butler & Son, of Dereham Centre, Ont., have placed an advertisement of their stock in the columns of The Farmer, to which we would call the attention of our readers. This firm have been breeding Guernsey cattle for some years, have made a number of importations of very superior animals, both from the island of Guernsey and from leading herds in the United States. One of the imported cows from across the line was a silver medal cow at Toronto. The stock of this firm was very successful this year at all the leading shows in Ontario, carrying off many valuable prizes. Besides Guernsey cattle, they breed Chester White and Duroc-Jersey swine. In these, as well as the cattle, they have stood well to the fore, in fact, being almost invincible in both classes. In all, they report that their herds have won them about \$1,800 in prize money this fall, and that since the first of September they had sold \$1,000 worth of stock. If a class for Guernseys is opened at Winnipeg this firm will exhibit next year. They have decided to offer a carload of stock for the west, which they will deliver free to buyers in the Northwest. Part of the carload is already sold. This should be a good opportunity for buyers to get good stock.

On the 14th of November the officers of the Dominion Cattle, Sheep and Swine Breeders' Associations forwarded another car of pure bred live stock from Ontario to the West. The car started from London on Monday evening, November 14th. At this point 16 Leicester ram lambs were loaded for Alex. Smith, Maple Lodge, Ont., consigned to Wm. Brown, Dunmore station, Alta. The next point of loading was Guelph, where two yearling Galloway bulls were taken on for Lieut.-Col. D. McCrae, consigned to W. E. Cochrane, High River, Alta. At Streetsville a Jersey cow and calf were taken on for John Lundy, of Brampton, consigned to Andrew Mutter, Brandon, and at North Toronto the following stock was loaded: Three Shorthorn cows, two heifers and one bull, consigned by W. D. Flatt, of Hamilton, to John Ramsey, of Calgary. John Bell, Amber, one Tamworth boar, consigned to Alex. Polson, Stonewall; W. E. H. Massey, one Jersey cow, consigned to Andrew Mutter, Brandon. At Carlton Jct. a Guernsey heifer, consigned to T. R. Robertson, Portage la Prairie, was taken on for the Hon. Sydney Fisher, Ottawa. Another car will go forward as soon as enough animals are offered to complete the car load. Those wishing

D. McBETH, OAK LAKE, MAN.

BREEDER OF

CLYDESDALE HORSES



AND SHORTHORN CATTLE.



I have a number of promising young Stallions for sale.

My Shorthorn herd is headed by "Best Yet," bred by Hon John Dryden, of Brooklin, Ontario. A number of young stock of both sexes, all registered, are for sale, and can be recommended as first-class animals.

Correspondence solicited. Prices right.

R. McLENNAN, Moropano P.O., Man.

Breeder and importer of

SHORTHORN CATTLE.

I have on hand some fine young stock of both sexes for sale, including **Royal Duke** (24640), a dark red, 3-year-old. Write for prices before purchasing elsewhere. 2474.



HOLSTEIN FRIESIAN BULL

"CRETQUE MONTGOMERY PRINCE"

The Diploma Bull of Brandon, 1898, for sale.

A. B. POTTER,

MONTGOMERY, ASSA

JERSEY BULLS

FOR SALE.

I am now offering my stock Bull **BELVEDERE STOKES PIGS**, for sale, also several young Bulls. Write for particulars.

WM. MURRAY,

2340 Dugald, Man.



Ridgewood Stock Farm, Souris, Man.

WM. SHARMAN,

BREEDER OF

High Class Herefords

A few early Bull Calves for sale.

Thorndale Stock Farm

JOHN S. ROBSON,
MANITOU, MAN

Breeder of SHORTHORNS. Long established, reliable pedigrees; straight dealing always. Young stock of both sexes always on hand. Write early if you want them. 2185



I HAVE FOR SALE

The three-year-old Shorthorn Bull **Aberdeen 2nd** (21643), winner of three 2nd prizes at Toronto and Winnipeg. Have used him as long as prudent. Also seven young Bulls sired by Aberdeen 2nd. Write for prices.

WM. CHALMERS, Hayfield, Man.

Shorthorn Bulls

FOR SALE.—The 18 months' old Shorthorn Bull, **Royal Victor** (27592) winner of first and sweepstakes at Belmont fair this year. Also 6 months' old Argyle Champion (28048). Both dark red.

2473 W. MABON, Roseberry P.O., Man.

H. R. KEYES,

IMPORTER AND BREEDER OF

CATTLE, HOGS AND POULTRY, MIDWAY, MAN.

animals taken from Ontario to Manitoba are requested to correspond with F. W. Hodson, Parliament Buildings, Toronto. It is very desirable that a car be sent out each month, but this cannot be done unless enough animals are offered.

Jas. Yule, manager of the Prairie Home Stock Farm, Crystal City, writes under date Nov. 28:—"I arrived safely last week with a carload of pure bred stock recently purchased in the east. The car contained 18 Shorthorns, 15 of which were yearlings, a team of work horses, a Yorkshire boar and three Berkshires. The Shorthorns are a nice even lot and are fully up to the standard which is always maintained on the farm. There are 12 bulls and 6 heifers. Amongst the former some particularly fine ones are Dashwood, Warrior, Caesar, and Bismark. The last mentioned was sold to J. S. Robson, of Manitou, immediately after coming off the car, which is a good indication that he is a "good 'un," as Mr. Robson is known all over the province as a careful and progressive breeder. The bull calf, Lord Wolseley, after passing the tuberculin test most satisfactorily, was shipped to the Indian Head Experimental Farm last Saturday. A Yorkshire and a Berkshire boar went along with him. The Yorkshire was a beauty, and I regretted to see him go. Other recent sales are a yearling bull and heifer to John Boak, Cannington Manor;

Observations of a Veteran.

George Hope came down the other day from Carberry to attend the annual meeting of the curling clubs of the west, and dropped in to The Farmer office to pay his annual subscription and compliment us on the rapid progress in the size and quality of our paper, of which he has always been a supporter. Many good ideas collected from his wealth of experience have found their way first and last into our pages, and though averse to much writing, he can always tell clearly and concisely whatever he has to say. This year's harvesting experience has been for him as for everybody else, rather harassing, but he has got there all the same and has his wheat all stored in the elevator, with 200 acres of capital stubble plowing done. No such fall for plowing has been seen for years, and George is not the man to miss a good chance. After more than 50 years of active and successful farming, he can afford to leave hard work to the younger men, but when the pinch came, he hitched up an old pair and ran his loads into town with the best of them, thus managing to keep a four-horse plow on the stubble all the time.

Mr. Hope has had the rare advantage of three distinct varieties of experience,

conditions as they emerge, and act promptly up to the light he has. On stock management there is much less room for varied action. Regular care and feed to stock selected rather more for usefulness than for effect, are open secrets that anybody may learn but too few steadily act on. His stock of cattle and sheep have always been well to the front at local shows, being well bred and always from the best sires within reach. His garden produce has always been of choice quality.

* * *

Outside of the sandy belt along the railroad track, the Big Plain is a heavy clay loam, but on the lighter land occupied by his sons William and George there has not been very essential difference in management from that on Mr. Hope's own farm. He has been careful and successful with his summer fallowing, and, after full trial, concludes that not only for his own, but most of the land in the province, a shallow plowing with the old Ontario 3-furrow gang plow, followed by a deeper one later on, is the best mode for this country. Whenever the root crops have been got in the gang plow is started. Weeds have by that time got a few inches high, and he does not want to see them any bigger. After the plow, the ordinary harrow is freely used and weeds in myriads are killed. People all round will al-

* * *



View on the Farm of M. Huston, Carman, Man.

three Ayrshires to W. C. Murden, of Plumas; a Yorkshire and two Berkshires (one of which I had just brought up with me) to Jas. Daly, of Killarney. The demand for all kinds of stock has never been brisker, and, even with our large assortment, it is difficult to meet all enquiries for stock. The new arrivals are doing finely in our stables and appear to be perfectly contented with Manitoba. Mr. Robson also purchased the six weeks' old bull calf from Roan Mary for \$150. He shows every indication of becoming a splendid animal, and will remain with us until the Winnipeg Exhibition. We intend to visit Ontario again soon to purchase another carload of pure bred stock, the majority of which will be swine."

There is at present a strong agitation in Montreal against the use of milk until it has been sterilized. Some hold to the idea that all cattle whose milk is delivered in the city should be submitted to the tuberculin test.

It is reported that the Illinois Fair Association lost \$8,000 and the Indiana State Fair \$7,000 on account of rain. The State Fair of Minnesota has this year cleaned up with a balance of \$11,000 in the treasury. This record is equally creditable to the management and the people.

all of which he has turned to very good account. As a young man he served a wealthy landowner in Northern Roxburghshire, who was ready to take up any new thing that promised to be useful. Then he farmed on rented land near Guelph for a term of years, and did well on it. Fully 20 years ago he came with the first batch of pioneers to the Big Plain, selecting with tried judgment the half section that has since been his home and round which his family have all settled and done credit to his up-bringing. Mrs. Hope has done her full share in building up the family fortunes, and the youngest son, James, now takes the management of the farm where for the last 20 years his parents have kept open house for a host of enquirers and friends. The groves round the cosy little house, the well-managed land, stock, and fruitful garden of the Hope farm are familiar to all visitors, and the observations of the man, who has in his own quiet way engineered the whole with such a steady success, are well worth thinking over. Therefore, we give them here in substance as concisely as possible..

* * *

As Mr. Hope well remarks, no two farms are alike and seasons vary widely. All that the best man can do is to learn from experience, think carefully over the

low their weeds to grow till nearly in bloom, with the idea that they will make capital green manure, when plowed under. But that crop of weeds sucks all the sap out of the land and in an ordinary summer it gets to be sometimes impossible to plow at all. Any work done after that fails almost entirely of the desired result, as the wheat crop following proves. The shallow plowing and harrowing keep all the moisture in, and there is never a season so dry that the second plowing cannot be easily done, the mulch of loose soil on top keeping the lower layer mellow and workable. "Scientific men may talk well about the good from green crops plowed under, but whatever may be the effect elsewhere, it is bad business here. The crops after my method are clean and heavy, just what we all want, and it works well every year so far." Which we regard as pretty sound science. What say you?

* * *

Mr. Hope thinks that for his land and mode of cultivation the shoe drill is about perfect. One morning last spring it was used before the night's frost was out of the ground. "You had better been in your bed than working there," was his comment on that morning's work. The seed was drilled in too shallow, and a half-crop on that five acres proved the correctness of the forecast. Another drill was used

with considerable loss, which proves that to get best results every step must be well taken from first to last. As soon as the crop began to show above ground the ordinary harrows were sent over it. On land left loose in the fall, or of looser texture, they would have buried a lot of the wheat besides killing the weeds, but on this heavier and well compacted land the weeds alone came to grief. Mr. Hope strongly supports the doctrine almost annually repeated in these columns, that the best time to kill crop weeds is when only a stray head is seen peeping through the surface. His son George, on very light land, used light home-made harrows for the same purpose. The texture of the soil and moisture conserved by the previous summer's treatment, combined with the fine mulch due to the harrowing, kept the crop growing all through the dry spring, and a splendid yield was the result. Very few chances are taken at any time on the Hope farm. Every result is carefully planned for and the mode of working to secure it steadily worked out, a style of farming that saves much crying over spilt milk.

* * *

The Carberry plain is unequalled in the west for timothy, from three to four tons per acre having been grown by more than one farmer on the best clay soils. Mr. Hope has this year a very fine catch, but his crop last summer was a failure—about the first he had. He does not blame the drouth alone for this. Sheep, if let run on young grass in the fall, eat the heart out of it, and that will not happen again with Mr. Hope. He has never sown to grass alone. He puts in his seed with the grain, and it does all right, as much as it had been in Ontario.

* * *

Mr. Hope notes the great increases in cultivated area round Rosser station and the nature of the subsoil there, which is much the same as over most of the Red River Valley, was referred to as a problem that it would be well to tackle, subsoil plowing being one thing we suggested and a trial of lime another. The lime, Mr. Hope thinks, could hardly pay, but is still worth trying. He has a much more sanguine opinion about subsoiling. When the Fowler steam plow was introduced in Britain, over thirty years ago, it did on some farms a great deal of mischief. The theory that there was much valuable plant food leached down into the subsoil was strongly believed in, and under this impression the original surface was turned under and some inches of new clay turned to the top, the result being that it took years before the land could be restored to its original bearing capacity. Mr. Hope saw all this, and now firmly believes that to turn over a six-inch furrow in the ordinary way with a one-furrow walking plow, and follow in the same track with the subsoiler, merely to stir the soil and leave it there, is as we also think the best method and ought to be tried at once on our hard-pan bottom. Perhaps our local government might be induced to do something to encourage a small illustration station near Winnipeg, on which subsoiling could be given a trial.

F. H. Bedford, Elm Creek, Man.:—"I am well pleased with The Farmer and wish it every success."

At Paterson, N.J., the life of Aaron Hermion was saved when in the last throes of lock-jaw by an operation a few weeks ago. Anti-toxine serum was injected under the skin, but did not give relief. Dr. C. Church then trephined Hermion's skull and injected the serum into the brain. Relief came immediately.

Getting Away from All Wheat.

The truth is being forced home more and more every year that the one-crop system of farming is not the best for our soil or our pockets. Farmers are slow to see this, but some are awakening to the light. Only lately we had the pleasure of talking with several very intelligent farmers from different parts of the province, and they were strong in their advocacy of a system of mixed farming as being the most profitable for every farm in Manitoba—none excepted. By keeping more stock, seeding down and pasturing land, nearly as much wheat can be sold as at present, the fertility of the land maintained and the income from the farm increased by returns from the stock kept.

* * *

The great growth of weeds so common on every farm is due very largely to our one-crop plan, and, by a judicious rotation of crops could be very easily done away with.

* * *

A Red River Valley farmer, south of the boundary, tells, in an exchange, how he has made stock raising pay, and also how his neighbor has made a success of mixed farming. Of his neighbor he says that he seeds each year with his wheat crop about 80 acres of timothy. He has over one-half section. The first year's crop of grass he cuts for hay, the next year he changes to pasture. He may leave this for pasture one year or more, but when it is broken it is practically a brand new piece of land, which produces him a good yield of the finest and plumpest of wheat.

* * *

Of his own work he says: "I go a little farther and cultivate for fodder each year a large field of corn, trying ordinary southern corn for seed, test it and plant moderately thick, cultivate well and your weeds are 'nix come arouse' and the land is ready for wheat. Just try it and find out for yourself, but what are you to do with the corn stalks? You need not burn them. I cut or harvest them with a corn harvester, and shock in large shocks. I don't grow for ears, I grow for stalk and foliage. Everything eats it, sheep, hogs, cows, horses, all crazy to get this food. I used to be short on hay, now I am long. I grow hogs to a profit: have cows and make butter, lots of it, and chickens and steers for the butcher, and colts to sell, and on the farm I am putting back each year more than I take from it."

* * *

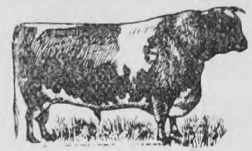
He next proffers some advice to his fellow farmers in the Red River Valley:—

"Now, farmers, wake up to the fact that you are lucky men, possessing one of the best pieces of land on God's footstool. I don't care in which part of the valley you are located, if you do as you should and can do, you can keep on raising wheat, but stop raising all wheat, stop loafing and spitting tobacco juice on the stove, get out at 6 o'clock each winter morning and work until 6 at night: then go into the house, kiss and play with the little ones, read and post yourself on all farm matters, and local news until 10 o'clock, and be ready to report each evening an advance in wealth and knowledge."

Pay as you go and go as you pay.

Secretary Wilson's plan of having an expert agricultural attache at the principal European embassies, to study the conditions of the country and to watch the marketing of American agricultural products, is bearing good fruit.

Marchmont Stock Farm.



SCOTCH-BRED

SHORTHORNS

12 Young Bulls for Sale

At moderate prices. Also **BERKSHIRE PIGS.**

TELEPHONE 1004B

W. S. LISTER, Middlechurch P. O.,
(7 miles North of Winnipeg.)

Excelsior Stock & Dairy Farm.

The largest prize-winning herds in Canada \$18,000 in prizes this year. Will deliver FREE one car of stock to any part in the Northwest Territories

The following stock for sale:

GUERNSEYS—Three bull- and six females

SHORTHORNS—Three bulls.

SWINE—Chester Whites show and breeding stock from two months to four years Duroc Jersey, 70 head from our Sweepstake herd. Tamworth—50 head a year several prize winners for sale.

Any other breed of stock selected and delivered in the Northwest at the lowest possible cost in order to make up a carload.

Terms—50% with order, balance upon delivery. Reference—Mr. C. M. Richardson, Eastern Representative of The Nor'-West Farmer.

W. Butler & Sons, Props., Denham Centre, Ont.
W. E. BUTLER, B.S.A., Manager.

PLAIN VIEW STOCK FARM

PORTAGE LA PRAIRIE, MAN.



The home of Shorthorns, Cotswolds and Berkshires, Berkshire herd headed by the best pair of Boars in Canada, Tippecanoe and Western Boy, never beaten in a show ring. An easy winner over Perfection, a year older, for Diploma, which was an Ontario winner; and breeding sows, such as Lady Clifford, Co. a Bell and two imported Highclere sows, all noted winners. A few sows and boars fit for breeding. Orders booked for August and September litters. When buying, do not lose sight of the herd that has won most diplomas and first prizes at the Industrial in 1896, '97 and '98. No inbreeding; pairs and trios not akin.

184 F. W. BROWN, Proprietor.

Maple Lodge Stock Farm. R. MCKENZIE, PROP.

HIGH BLUFF, MAN.

LARGE ENGLISH BERKSHIRES FOR SALE.

Young boars and sows ready for breeding purposes. Orders taken for young sows to be safe in pig this fall or winter. For prizes won by us, see Winnipeg and Brandon Fairs, 1898, an account of which is given in the August issue of The Nor'-West Farmer. Write for prices, or come and see us.

MCGILL BROS., Carroll, Man.,

We have a number of registered

SHORTHORN CATTLE

Both male and female, for sale



Notice to Stock-Raisers.

Arrangements have been made by this Department whereby stock raisers and farmers in the Territories can import, under Government supervision, thoroughbred cattle purchased from breeders in Ontario, at a uniform cost of Five Dollars per head for transportation to nearest railroad points, including care on journey.

Particulars as to conditions under which such importation will be made, may be obtained by applying to the undersigned. (By Order)

CHAS. W. PETERSON,
Department of Agriculture, Deputy Commissioner.
Regina, N.W.T. 2480

British Dairy Shows.

The London dairy show was held in the third week of October. There was keen competition in dairy cows, and prizes for all the breeds and grades of breeds used in England. A two-days' test showed that a Shorthorn grade had made, from 121 lbs. of milk, 5.64 lbs. of butter fat. Another capital record made in one day by a recently calved Shorthorn was 50½ lbs. milk and 3 lbs. 1¼ oz. of butter, or 1 lb. butter for 16.1 lbs. milk—a rare quality of milk for a fresh cow. The best Jersey, 134 days calved, made 32½ lbs. milk and 2 lbs. 14 oz. butter. The championship for the greatest number of points went to a Shorthorn-Guernsey cow, that made over 128 lbs. milk in two days and 6.10 lbs. butter fat. Second best went to a Welsh cow, giving 120 lbs. milk.

Perhaps the most curious feature of these tests is the difference in quantity and quality of the product of cows all presumably of assured capacity. One dairy Shorthorn, from a day's yield of 38 lbs. 7 oz. of milk, made only 13¼ oz. of butter. It would be difficult to find any cow so

The Kilmarnock dairy show is the great show for Scotland and the North of England, and, as noted in our last issue, there were 50 contestants in the butter-making contests alone. These were divided into two sets to begin with, and the dozen at the top were about equal male and female. These were afterwards pitted against each other, and it was found the six ladies were at the top. The quality of the work was very high, and the judging a difficult and delicate undertaking. In cheese the same difficulties have transpired as perplex the makers of Eastern Canada, but all the judges agreed that the general level of quality was very satisfactory. Uncolored cheese is there worth fully a cent a pound more than the colored. The Canadian methods, as represented by R. J. Drummond, who went from Canada some years ago as teacher at the Kilmarnock dairy school, have found great favor in Scotland. The cheese made in Wigtonshire came high up in all the competitions, and represents the teaching of Mr. McFadyean, the pupil and assistant of Mr. Drummond. As a proof of the established popularity of Mr. Drummond, it may be mentioned that on the occasion of his ap-

A Glorious Country.

A recent traveller in the Northwest writes as follows:—"While stopping at this place we secured teams and drove into the country. We talked with many farmers, and they all assured us that they had never had a failure of crops, and that wheat averaged from 35 to 55 bushels per acre; oats from 70 to 100 bushels; barley from 50 to 70 bushels; potatoes from 400 to 800 bushels. The soil is black loam, from two to four feet deep, with clay subsoil. The land close to the town is all taken, but homesteads can be had within 20 or 30 miles of Edmonton and railroad lands can be had within six miles for \$3 per acre on long time and low interest. All the farmers in the Canadian Northwest are contented and happy. With good markets at their doors, and their granaries full of grain; plenty of good fat hogs and cattle, and plenty of wood and coal for the hauling of it; no chattel mortgages or seed grain notes to bother them; taxes very low, and the Canadian government doing all it can for the people, it is no wonder that the farmers in



Crop of Flax on the Brandon Experimental Farm, 1898.

poor as that, and the change of environment or some defect in the testing must be blamed for the defect. A pedigreed Shorthorn took 34½ lbs. milk to make a pound, which is a contrast to the winner in the same breed, whose pound of butter was made from 16 1-10 pound.

At the same show, Messrs. R. A. Lister & Co. were awarded a silver medal for a new milk tester, with automatic measures for acid and milk, the invention of W. A. Stokes, public analyst for Paddington. These appliances consist of a new test tube, which, being open at both ends, is easy to clean, and will test not only sweet, but stale milk and cream; also a most ingenious apparatus for measuring both sulphuric acid and amylic alcohol automatically, so that any person can accurately take or test on a Gerber or Babcock system, without any expert knowledge or experience. The third appliance is an automatic pipette for measuring exact quantity of milk. This is most simple and valuable, the ordinary milk pipette being entirely dispensed with. We shall be mistaken if these automatic testing appliances are not eagerly taken up by dairy factories, the managers of which will find them safe and convenient, with great saving of time.

proaching marriage an influential committee are arranging to present him with a public testimonial. The Scottish Farmer, in noting this movement, says: "Presentations mean much, though sometimes they mean little; but when a man has well served his fellows, has done excellent public service, and promoted by his zealous attention to duty the public good, it is fitting that he should be honored. Mr. Drummond is a many-sided man. He came to Scotland a stranger, and he has made troops of friends. Those who have most closely followed his instructions are most enthusiastic in his praises. He has made many farmers richer by putting several shillings per cwt. on their cheese, and our best wishes go with him, and with the movement to celebrate his marriage by a public testimonial."

The tilling of the soil is destined to be at once the most learned and most practical of all professions.

S. A. Bedford, superintendent Brandon Experimental Farm, writes under date Nov. 9, 1898: "The Nor'-West Farmer for November is an excellent number and does you credit."

the Canadian Northwest are prosperous, contented and happy."

Jasper Beaupre, Willow Bunch, Assa., a lad only 16 years old, stands 7 feet 1¼ inches high and weighs 250 lbs.

When a young man finds sport of any sort to interfere with his business, then is the time for him to alter his course. His sport won't keep him; his business will, or should do.

Sir W. C. VanHorne is erecting one of the largest and most complete barns yet built in the Maritime Provinces at St. Andrew's, N.B. The people of the Lower Provinces hope he will keep a large herd of fine breeding stock.

Judge Ryan, at a recent sitting of the county court at Carberry, committed three men to jail for non-payment of debts. If they cannot pay their debts at the end of 20 days, they will be again committed. Going to jail does not pay the debt. The present law, which came in force in April, 1898, will have a different meaning now to those against whom there is a judgment summons.

Keep Thinking.

Mr. Armour, the great packer and chief feeder of the world, used to say to his employees who asked how to get on in the world, "Keep thinking." The import of this answer is far-reaching. In all departments of life he does most who thinks most. The force which achieves is mind; since whatever gets out in action is first a thought. The head is the place of beginnings, where things originate, and when that moves many things go, whereas, if a limb moves that alone may go. When one thinks, most of the man is working, and the work then done counts most. Thinkers have a long progeny of effects, which never become extinct. One should try to think what he never thought before, and what none ever thought. Yesterday's thought will not serve for to-day. Thoughts begun should provide force to go on. Nothing good proceeds of itself; and he only can keep it up who starts it. Each must do his own thinking to profit by it. Enterprises must be followed with thoughts as well as blows, and the successful are they who have enough thought to go to the end of a venture.

The chief question of the great man is, "What next?" He is always about to do. When either beginning or ending his interest is in the sequel. He asks, "What is next to do to go on?" and "What is next to do to begin something else?" The attained cannot long interest one without loss. He must follow up achievement, piling success on success. One ceases to do much when he fails to do more.

Especially should one keep thinking till he has something worth thinking at. The main thought is at the beginning of an enterprise, where all is yet thought, and one selects from the possible what will be most profitable.

Thought should determine in advance the mark and the aim. Man should not shoot himself off till he is ready, but look before firing. The hit will be no better than the aim. Random beginning is as bad as random proceeding. One attains nothing unless he goes for something, since values rarely lie in the way of chance.

One should learn to think through his whole mind. By getting all his thoughts at work he is doubly a thinker. The greatest power of thought is far from the lowest, the measure of a man being a long one. Ability to use the whole mind is rare, whereas all the mind, like all the lungs, should often be called into play. Consumption of intellect comes from inaction of parts of it. One knows not how large he is till his mind rises to its full height.

One should not only think his best, but think often at his best. Success depends on the amount of mind put on projects, and one should learn to be habitually great. The power to do one's best is the condition of success, and especially to keep along at it. One never does his best at once. He who can work through time is the great accomplisher. To be a great man longest is to be the greatest man. Magnitude runs through time as well as space.

We should take time to think. Many fail to do this because they are always working. One cannot be too busy to think, but should be most busy in thinking. We have always time for the most important thing, which is head-work.

We should think hard enough, often enough, and long enough to devise all of which we are capable. Neither capacity nor time should be wasted. If we did more thinking we might do less working. For thought often does our work for us, or dispenses with it.

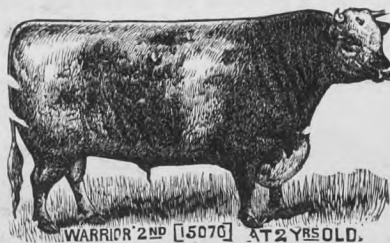
We should compel ourselves to think. Few incline to thought spontaneously. We

must force ourselves into our highest altitude; and climbing is irksome. Getting control of what starts thoughts, we should keep them going. The intellect must be backed by the will. When mind stops, man stops; and only in needed rest and sleep should we consent to be nothing.

Wm. Henley, the Park Farm, Qu'Appelle Station, Assa., writes under date Nov. 23, 1898:—"I am well pleased with The Nor'-West Farmer."

It is a happy combination to have a good farm and a good man together. A good manager is a valuable object lesson, and is imitated in his methods for miles around. He sets the example—what crops to seed; how to cultivate; what machinery to buy; when, and how to market, and in many ways is unconsciously helpful to those around him.

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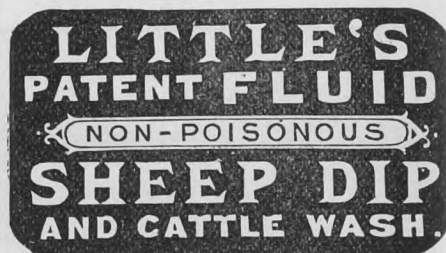
"I was a pale, puny, sickly woman, weighing less than 90 pounds. I was never well. I had female troubles and a bad throat trouble. I came across an advertisement of Hood's Sarsaparilla and had faith in the medicine at once. I began taking it and soon felt better. I kept on until I was cured. I now weigh 103 pounds, and never have any sickness Hood's Sarsaparilla will not cure. My blood is pure, complexion good and face free from eruptions." MRS. LUNA FARNUM, Box 116, Hillsgrove, Rhode Island.

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Is the best—in fact the One True Blood Purifier.

Hood's Pills are tasteless, mild, effective. All druggists. 25c.

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Answers to Questions.

By an Experienced Veterinarian.

As it is desired to make this column as interesting and valuable as possible to subscribers advice is given in it free in answer to questions on veterinary matters. Enquiries must in all cases be accompanied by the name and address of the subscriber, but the name will not be published if so desired. Free answers are only given in our columns. Persons requiring answers sent them privately by mail must enclose a fee of \$1.50. All enquiries must be plainly written, and symptoms clearly but briefly set forth.

Callous Lump.

A. H. M., Carman:—"Bought mare with callous lump on knee of right fore-leg, presumably from an injury of some sort. Apparently no dislocation of the joint. Leg is stiff. What treatment would you recommend?"

Answer—Apply a blister of biniodide of mercury, 1 drachm; vaseline, 7 drachms, well rubbed in. After the skin has recovered from the blister and the scabs have been washed off, paint the swelling daily with tincture of iodine, double strength.

Lameness—Scratches.

Bob, Kinistino: 1. "Mare, 11 years old, lame in right hind leg, no swelling to be seen; stands with leg wide out and forward, trembles and sweats with pain. 2. Three-year old mare, with scratches, legs very much swollen to hocks. Please prescribe."

Answer—1. The indications point to the hip as the seat of lameness, but what the nature of the trouble, whether fracture, dislocation, or strain, remains doubtful. You do not say whether lameness occurred suddenly as result of injury or came on slowly, or how long she has been lame, whether she can put weight on the leg or not. Answers to the questions would help in forming a diagnosis.

2. Wash with castile soap and soft water and dry with soft towel, then apply following salve: "Zinc ointment, one ounce; vaseline, one ounce; oil of cade, half an ounce. When the scratches are once clean and free from scab, do not wash again until they require it. Apply the salve twice a day.

Avian Tuberculosis.

R. T. C., Virden: "I have sent by mail a growth of some sort that was taken from a grade Plymouth Rock rooster at the end of his first season. It was on the right side near the tail, where no organ should be. He was in good condition and seemed healthy. In the summer he had several prolonged fights with a larger bird and was pretty well used up for a while. I should be glad to know what might be the cause."

Answer—The specimen is identified as a tuberculous growth in the state known as calcareous degeneration. The presence of this disease in your rooster should lead you to look with suspicion upon the rest of the flock, and to use the axe freely on any that are dull and thin.

Itchy Horses.

W. T. H., Roland:—"Our horses are troubled with an itching which attacked them last winter and is coming on this winter again. They are not lousy. Can you give me a cure or tell me what it is?"

Answer—An itchy skin may be caused by external influences, such as parasites of various kinds, notably lice, and the acarus producing mange, and in a lesser degree by ordinary dirt and dandruff, resulting from want of proper grooming; or else it may proceed from internal causes, of which errors in diet, resulting in an overloaded condition of the system with impure blood, are the commonest. The mere presence of this symptom in your horses is not enough to enable one to identify the cause, which must be carefully looked for on the skin, or in the conditions of your stable management. Should you fail to locate the cause, try the effect of a change of diet, giving less grain, more bran, and if possible some roots, especially carrots, and groom them every day.

Scotch Greys—Boiled Oil—Rye as Feed.

Subscriber, Regina:—" (1.) Could you kindly tell me through your columns, where I could obtain chickens known as Scotch Greys? (2.) Also what effect boiled oil would have on a horse, if given. (3.) Can rye be fed safely to horses?"

Answer—1. Perhaps some of our readers will answer this question. The breed is a new one to us.

2. Boiled oil is supposed to be very injurious to horses, and one case is known to me where a horse died after taking a bottle of it, but whether his death was due to the oil or not is impossible to say. Among horsemen there is a widespread belief in its harmfulness and there must be some reason for it in disastrous experience like the above. It is not prescribed medicinally, but is occasionally administered in mistake for raw linseed oil. Of its effects on the horse my experience goes no farther.

3. Rye as a feed for horses should be fed sparingly and always crushed or boiled. It is similar to wheat as a feeding stuff, and not to be compared to oats in suitability for horses. Rye should not be fed alone, but mixed with oats or bran, beginning with a small quantity, and increasing as the horse's stomach becomes accustomed to it. If fed in large quantities by itself, rye is apt to cause derangement of the digestive organs, or laminitis ("founder").

Kidney Disease.

W. Howland, Wascana:—"I have a mare 6 years old which seems to be hurt over the kidneys. She is all right when working, but as soon as she stops she will stand with all her feet stretched out, as though she wanted to make her water, and it is hard for her to stand around in the stable, or to back up. In backing up, or standing around, she will lift her legs up high and is all of a tremble. If you could give any information, I would be greatly pleased."

Answer—The symptoms point to disease of the kidneys, with an irritable condition of the bladder as a result. The following treatment will probably be beneficial to her. Give her, twice a day, a powder composed of boracic acid, 3 drachms; digitalis, 1 scruple. This may be mixed with the food. As an addition to her usual diet, give her carrots every day, four or five large ones. Linseed meal or crushed oil cake will also be beneficial. Do not feed her, when standing idle, more than one-third the amount of grain she gets when working.

Lameness.

G.A., South Edmonton: A. "My father has a mare that is very lame in the front foot, and we don't know exactly what is the cause of it, although we think it is the puffs. It isn't a nail. Do you think



REMEMBER,

in buying harness, it pays to buy the best—and only the best. Cheapness is a desirable quality, but to buy a good article at

a FAIR PRICE is true economy. We continue good quality with reasonable prices in our Harness. Our values in foot wear are well known.

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Means death of the animal and may mean the infection of your herd and pastures. The application of

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means quick and permanent cure of every case. Can't harm. Leaves no trace of disease. A common-sense remedy, easily applied. One to three applications cure. Endorsed by leading ranchers of the continent. Costs you not one cent if it fails to cure. Sent anywhere by mail.

PRICE, \$2.00.

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All kinds of Pumps repaired. Office and Factory, Ninth St., opposite Northern Pacific Station.

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When writing advertisers, kindly mention The Nor'-West Farmer.



How to Procure Eggs in Winter.

To procure a steady supply of eggs in winter, the farmer must properly care for and manage his fowls. He must realize the fact that he can no more receive a return from neglected hens than he can from neglected fields. It is not a whit more unreasonable for him to expect paying crops from frozen ground than it is to anticipate a crop of eggs at winter prices from frozen hens. A profit from his fields can only be derived by the systematic, intelligent, and industrious manipulation of the soil. So it is with his poultry. He must understand what he is about. He knows that his fields must be properly fed to ensure a paying return. The laying stock must be equally well fed. They must be comfortably housed in the cold season. They must be given food best calculated to furnish egg-forming material and to gently stimulate, material to furnish lime for the shell, meat to make

acid. We have thus found from one chemist of what the egg is composed, and we learn from another that green bones, which have been hitherto thrown away or given away by the butchers, are, when "cut up," not ground up, the best and cheapest egg-making material extant. Green bones are rich in albumen, phosphate of lime, and phosphoric acid, which go to make the egg and shell. The result has been a revolution in the economy of egg production in winter. An immediate result has been the invention and manufacture of mills to "cut up" the bones. And so we have what has heretofore been actual waste converted into eggs commanding a high price. Surely this is a great step in the right direction.

A good plan whereby a farmer may utilize more waste is to have a pot set aside, into which all the kitchen and table waste in the shape of meat scraps, pieces of bread, uneaten vegetables, etc., may be thrown. Heat this up in the morning with boiling water and mix in bran, shorts, provender, or whatever is cheapest and most abundant on the farm, until the whole is a crumbly mass. A small quantity of black and red pepper should be dusted in before mixing. Let the mixture stand for a few minutes until partially cooked, and feed in a narrow, clean trough to the layers in the morning. A light feed of oats at noon, and a liberal ration of wheat, buckwheat, or other grain for the

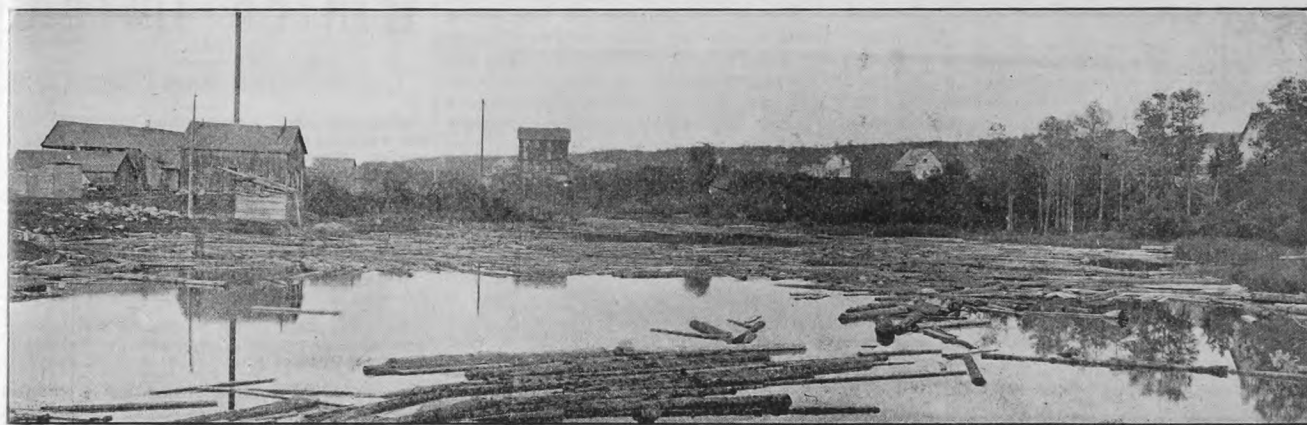
Why Not in Manitoba?

It is now proposed to start a big poultry farm north of Toronto. It is said that a company is being organized with a capital of \$40,000 to stock the farm. Fifteen thousand head of fowl will be kept, the object being the production of eggs for shipping to England. Manitoba cannot grow enough eggs to supply her own wants. Poultry raising, conducted on proper lines, can be made very successful here. What's the matter with some of our Manitoba farmers investing in a good poultry house and keeping poultry? If there is enough in it to induce a company to start such a plant as proposed at Toronto, there is a good thing in it for the farmers of Manitoba.

Silver Jubilee Exhibition.

Thos. A. Browne, secretary of the Poultry Association of Ontario, has our thanks for an invitation to be present at the Silver Jubilee and International Exhibition of the Poultry Association of Ontario and the American Poultry Association, to be held at Toronto, January 9th to 13th. Following is the programme:—

Jan. 2nd—Entries positively close; if post-marked later, returned.



A Boom of Saw Logs at the Birtle, Man., Saw Mill.

blood. There is a constant drain on the resources of the regularly laying hen as there is on the fields from which successive crops are reaped. The farmer supplies the drain on his fields by a liberal supply of manure. He must supply the drain on the resources of the laying hen by similar generous treatment in food. In the summer when the hen can roam at large, she supplies herself with all the necessary egg-making material. But when she is confined to limited space, in winter, she must be furnished with all she has been accustomed to help herself to when abroad. And this is the whole basis of winter laying. Let the hens be supplied in the house as nearly as possible with what they can pick up outside.

The proper food for egg production is a very important factor, because by finding what the egg is composed of, and feeding such constituents, we are more likely to get the egg. Turning, then, to Mr. Warrington, an English chemist of note, he tells us that the white of an egg is rich in the alkalies, potash and soda, a part of the latter being present as common salt; that the yolk is extraordinarily rich in phosphoric acid, and contains much more lime than the white. The fundamental principles to be borne in mind, continues Mr. Warrington, in arranging the diet of a hen are that the largest ingredients in eggs are lime, nitrogen and phosphoric

evening meal should bring plenty of eggs. Each layer should be sent to roost with a full crop to carry her over the long night fast. It is imperative that green food in the shape of unmarketable vegetables, clover hay, or lawn clippings—the two latter dried in summer and put away to be steamed for winter use—should be supplied. If green bones are fed they may be given in lieu of any of the regular rations, reducing the quantity of grain in proportion to the quantity of bone used.

The practice of cramming hens with wheat at every ration is the very way not to get eggs. Too much wheat, buckwheat or barley will go into fat rather than eggs, and fat is a disease in poultry. The morning mash should be fed in a long narrow trough about one and three-quarter inches in width, nailed to the side of the house so that the hens cannot jump into it and soil the food. Feed only enough soft food to satisfy, never so much as to gorge. When a hen has had so much food that she will go into a corner and mope, she has had too much, and if the overfeeding is continued she will become too fat to lay. If cut green bones are fed, it should be in the proportion of one pound to every sixteen hens. If fed morning and night, a small feed of oats at noon and night is all that will be necessary. Experience will teach the "happy medium" in feeding.—A. G. Gilbert.

Jan. 9th, 10 a. m.—C. J. Daniels, Supt., ready to receive exhibits.

Jan. 10th, noon—All exhibits must be in position.

Jan. 10th, 1:30 p. m.—Judges commence and place awards.

Jan. 10th, 2 p. m.—Exhibition open to the public, and 9 a. m. to 10 p. m. daily.

Jan. 10th, 7:30 p. m.—"A. P. A." annual meeting in Pavilion.

Jan. 11th, 8 a. m.—Train leaves for Guelph, where visiting Fanciers are invited to inspect Ontario Agricultural College, returning same evening.

Jan. 12th, 1:30 p. m.—Annual meeting of Ontario Poultry Association.

Jan. 12th, 8 p. m.—Banquet to visiting Fanciers by the Toronto Poultry and Pet Stock Association.

Jan. 13th, 9 a. m.—Payment of prizes by the Treasurer.

Jan. 13th, 12 noon—Exhibition closes.

No information given as to entries made by exhibitors until closed.

The Farmer would like to see some of our Western Canada fanciers attend this show, as we believe their birds would not be far out when the judges had finished their work. For information or prize lists, apply to Thos. A. Browne, London, Ont.

If any of your flock is troubled with scaly legs, take the coal oil can and give the legs a good coating of oil. Don't get the oil upon the skin. Not many will want a second dressing, but, if they do, give it to them, and a few may need a third dressing.

Essentials for Winter Eggs.

In order of merit:—

1. Comfortable quarters.
2. Plenty of exercise.
3. Green food.
4. Animal food.
5. Mixed grain and mash.
6. Dusting places.
7. Fresh air.
8. A good supply of grit.
9. Fresh water.

Warm Roosting Places.

It is not necessary that the whole chicken pen be as warm as the roosting place. During the day the hens are actively scratching, or moving about, but during the night they are quiet and need a warm place. Some poultrymen have the roosts partitioned off by itself, a long narrow place, with doors at each end, which can be closed at night and the chickens shut in. This pen is up some distance from the floor and has a floor of its own. This leaves the chickens the full-sized ground floor for scratching, etc. Such a pen keeps in the warmth of the chickens, and if properly ventilated will assist greatly in keeping the frost away from them. Somewhat the same results can be secured by hanging old pieces of carpets around the roosts. A little attention to supplying a warm roosting place will mean more eggs when they are a higher price.

Egg Eating.

Egg eating is an acquired habit. As a rule, no hen will eat her eggs, as such a practice is not in accordance with her natural instinct. If she finds an egg broken she will be tempted to eat it, but only then when she has been confined on a diet composed almost wholly of grain. When she learns the habit she teaches others, or, rather, they follow her example. There is no way to prevent the practice except to compel her to lay the eggs where she cannot easily eat them. To do this, make a box open at one end (having a top), so that she must walk into the nest. Have the nest ten inches from the floor and make it about one foot square and ten inches deep. She cannot then reach the eggs from the floor and she cannot eat the eggs in the nest unless she can stand up therein to do so.—Rural World.

According to a report of the English consul at Riga, Russia, the egg trade there is assuming enormous proportions, no less than 29,842 tons being exported from that port in 1897, or about 425,000,000 eggs, the great bulk of them finding their way to Great Britain and Germany. As soon as the Siberian railway is completed it is expected that additional large quantities of Russian eggs will find their way to the English markets.

An interesting experiment in hen management has recently been made at the Utah Experimental Station. Nine pens, from pullets to 4-year-old hens, were all fed and housed in much the same way, getting all they cared to eat. Part of the old hens were fed in a box, part fed grain in the straw. The pullets also fed on grain in the straw. The first lot gave 64 eggs in a year, the next 107, the pullets 182. The food cost of these eggs was for pullets 4.1 cents; hens that had to scratch, 6.9 cents; hens fed from the box 9.9 cents a dozen. The fowls were all Leghorns. The teaching of this experiment is obvious. Never keep hens over 2 years old, and make them scratch for their feed.

Success in poultry culture is no hazardous affair, says one, but is secured only by regular methods, and the closer the application and more careful and earnest the effort, the greater becomes the success.

A rough test to tell the age of eggs is salt water, using two ounces of salt to the pint. Fresh eggs are heavy and sink well below the surface. Eggs three days old swim higher, but do not fully float. Eggs over three days will float, and old eggs will stand high out of the water. A similar test will separate the heavy, soggy potatoes from the light starchy, mealy ones.

A series of experiments undertaken at the New York Experiment Station made it very conclusively appear, says the Farmer's Gazette, that where hens are kept without a male, eggs were produced at about 30 per cent. less cost than exactly similar pens where cocks and cockerels were kept. In some pens, too, the production of eggs was nearly a third larger in pens where no males were kept than in others of precisely the same kind, managed in the same way, except that the presence of the male was permitted. Keeping males in laying pens, therefore, except where fertile eggs are wanted for setting, is a mistake in a variety of ways.

It is not too late to fatten a few nice chickens for your own use for Christmas and New Years. It is so much nicer to have well-fed chickens than poor, thin ones. The nice ones can be had for a little trouble. Select your birds—if there are more young cockerels around than are needed, include them in the list—coop them in a warm comfortable place, where they will not be disturbed and where they will not have too large a place to run around. Now give them all the fattening food they can eat and fresh water once or twice a day. Boiled barley, wheat, corn and potatoes are good fattening foods. Give them all they will eat of a variety of these foods and crowd them along. Two weeks will put them in good shape and is about as long as they can stand such forcing before they will go "off" their feed. A little experience gained in fattening a few chickens for your own use will be of use to you in preparing for market another year. If you have a pair of scales weigh your birds before the fattening process begins and afterwards. Now count up the amount of grain fed, and see how much it has cost you to make an increase of a pound or so, and then compare it with the price for such birds on the general market.

WHITE PLYMOUTH ROCKS.

Winning at last Exhibition of Manitoba Poultry Association four firsts and two second prizes. If you want good birds, write for prices.

S. B. BLACKHALL,
696 McMicken St., Winnipeg.



HOW TO START
in the POULTRY BUSINESS and how to make it a complete success is the theme of our POULTRY GUIDE. Tells all about poultry houses, how to build, cost, &c., and how to breed, feed and market fowls. Treats also of the famous
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which is delivered freight paid to every purchaser. This machine requires absolutely no artificial moisture. Send 10 cents and get the book. Circulars FREE.
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EGGS IN WINTER.

POULTRY SUPPLIES:

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A few fine PEKIN DUCKS for sale. Write for particulars. R. DOLBEAR, 1238 Main St., Winnipeg.

When writing, mention The Farmer.

Oak Grove Poultry Yards,

LOUISE BRIDGE P.O., WINNIPEG, MAN.

50 pairs of young Pekin Ducks from imported and prize-winning stock, at from \$3.00 to \$10.00 per pair. 100 pairs of young Bronze Turkeys, after Sept 15, from \$4.00 to \$6.00 per pair. From prize stock. I also have young stock of different breeds for sale. Write.

I am sole agent for Manitoba and N.W.T. for GEO. ERTTEL & CO'S VICTOR INCUBATORS and BROODERS, which are made in the following sizes:

50 egg size,	\$12.50,	f.o.b. Quincy, Ill.
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200 "	" 23.75,	" "
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These machines have copper tanks, moisture pans, thermometers, egg testers, egg turners, regulators and lamps. Everything is complete, and every machine goes out with a guarantee that it will do as represented or money will be refunded.

Address—CHAS. MIDWINTER,
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Louise Bridge Poultry Yards

Are still headquarters for the leading strains of S. and R. C. W. Leghorns, White Wyandottes, and Black Spanish. I have on hand about 400 head of young stock, and to make room for them I am now offering the bulk of my choice breeding stock for sale in pairs, trios or breeding pens, at low prices, quality considered.

Young stock for sale in fall.

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BUY WINTER LAYERS.

Light Brahmas and Barred Plymouth Rocks.

Reducing stock. Young and old birds, single, pairs or trios for sale from \$2.00 upwards. Eggs in season. My stock have won prizes at the leading shows in Canada.

E. R. COLLIER, Box 562, Winnipeg.

BLACK MINORCAS

J. DENNER & SON, 295 Fountain St., Winnipeg. Breeders of high class Minorcas, will this season breed from two pens.

No. 1 Pen—headed by brother to the winner of New York Show, 1897, mated to pullets imported direct from Pitts, of England, winner at the Crystal Palace.

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Black Langshans, Cornish Indian Game, S. C.

White Leghorns, Buff Cochins, White Wyandottes, one pen R. C. Brown Leghorns

cheap, and Buff Bantams.

Correspondence solicited. 2471 Prices right.

G. H. GRUNDY,

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Breeder and importer of high-class Barred Plymouth Rocks, Silver Laced Wyandottes and Black Red Game Bantams. Having been a breeder and prize-winner for the past 15 years, can guarantee satisfaction. Will mate up young stock in pairs, trios or pens, not akin. All Cockerels for sale. Prices right. 2449

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BUFF COCHINS.

Being overstocked I am prepared to sacrifice fifty splendid birds, including first prize winners at Winnipeg and Brandon Fairs '98. Farmers and others wishing to increase size of next year's chickens cannot afford to miss this chance.

F. D. BLAKELY,

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For Sale, Barred and White Rocks, Golden and Silver Sp. Hamburgs, White Crested Black Polish, Black African Bantams and Pekin Ducks. Write me for prices.

JAS. F. McLEAN, Box 394, Brandon.

When writing, mention The Farmer.

A Feed Trough for Poultry.

A convenient feed trough for poultry may be made after the accompanying illustration. The trough should not be too wide; when the upright board over the centre of the trough is in place there should not be room for a hen to stand on the edge of the trough. This board will prevent the hens getting their feet



into any mash put in the trough, and being open underneath will not prevent hens feeding from both sides. The end pieces extend a few inches above the board and a wire is run across the top a few inches above. This will prevent the hens roosting on top of the trough. The trough can be made of any desired length.

No hen can be forced to lay eggs. Nature gives her a certain period of time during which the eggs are to be developed. It is not difficult to supply her with the needed elements for this purpose, and any surplus bestowed will only be wasted.

Coal ashes combine a good substitute for road dust for the fowls, and a supply of excellent grit. The explanation of dust being death to lice, lies in the fact that the fine particles of dust close the apertures in the bodies of the lice, through which they breathe, thus suffocating them. For this reason dust composed of fine particles is the most effective.

Over-feeding is the scourge of the poultry yard. To it may be traced many of the troubles poultrymen meet with. The failure to get eggs may be laid to this when the fowls have comfortable quarters and everything necessary for successful work. Remedy—Apply Abraham Lincoln's aphorism, "Root hog or die," adapted to the poultryyard.

One of the chicken fattening stations which Prof. Robertson, Commissioner of Dairying and Agriculture, resolved upon establishing in Canada as a result of his observations in England, has been started in Quebec, and another will be put in operation at Carlton Place. The latter is to be in charge of Joseph Yuill, a competent dairyman. He will purchase the chickens at current market rates, put them through the fattening process for from three to five weeks, and then sell them at advanced prices. Professor Robertson describes his process as follows: The chickens are kept in crates made of slats, each about 6½ feet long by 14 inches square. These crates are divided into three compartments, each holding five chickens. The birds are fed on finely ground grain, preferably oats, mixed with skimmed milk. For the first ten or fifteen days they are allowed all they will eat of this food; but after that, as they gain flesh, they are apt to lose their appetite and then the "forcing process" is resorted to. To the meal and milk food a little tallow is added and the mixture is put in what is known as a cramming machine. It consists of a hopper, with tube and pump attachment so arranged that a single "dose" is forced out at each stroke of the foot pump. The attendant goes around the coops with this machine, inserts the end of the tube in the chicken's mouth, and gives a single stroke of the pump, which thus fills the fowl's crop. The process is said to be both clean and cheap and under it the chickens thrive immensely, gaining as much as three pounds each. The flesh thus put on is well flavored and tender, and in England it is quite a paying business. Some interesting experiments with various food mixtures will also be made in this connection.



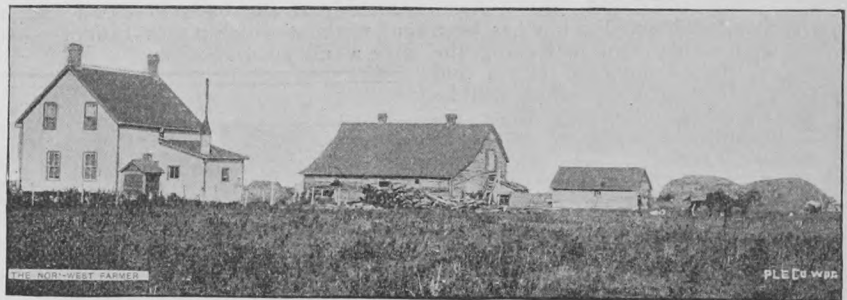
Superintendent Macdonald's Dairy Prize.

Last month we published C. C. Macdonald's offer of a prize of \$50 for the best dairy herd in the province. We hope that a large number of farmers will enter for this prize. Mr. Macdonald sends the following in connection with this matter for publication:—

"Competitors are requested to send in their names one month before the test begins. Anyone not registering their name at the Dairy Branch Office, either in person or by letter, will not be considered a competitor."

Winter Dairying in Alberta.

C. Marker, superintendent of the government creameries in Alberta, sends The Farmer the following note about dairy work during the winter. Our readers will be pleased to learn of the success attending the operation of a winter creamery in the west. There is no good reason why



View on Farm of D. Waddell, Bates, Man., 14 miles east of Carman.

this work cannot be duplicated at other points.

Professor Robertson has decided to increase the amount of monthly advance payments to the patrons of government creameries from 10c. per lb. of butter, as heretofore, to 15c. per lb. during the winter season, i.e., from November 1st to May 1st. This was done with a view of encouraging as many farmers as possible to patronize the creameries, which will be kept in operation all winter. Winter dairying is, for various reasons, well worthy of the dairymen's serious and immediate attention. Of the immediate benefits accruing in the shape of monthly cash payments, we may consider, for example, the results obtained all last winter. The average price realized by the patrons of the creamery for their butter (after the manufacturing charge of 4c. per lb. had been deducted) was, during the summer (May-November), 1897, 14.87c. per lb., and during the winter (November-May) they realized 19.72c. per lb., a difference of nearly 5c. per lb. of butter in favor of winter dairying. These figures speak for themselves, and, as a consequence, I may mention that the output of butter at our two winter creameries, Innisfail and Red Deer, Alta., is at present 25 per cent. greater than it was at the same time last year. I am pleased to say that the change referred to above is very popular and much appreciated by the patrons, and that the winter dairying movement is here to stay. Once the patrons take with the idea and realize the benefits of it, the rest becomes easy."

The Farm Separator.

At the recent convention of the Iowa State Dairy Association, the farm separator received a warm endorsement from men who had strongly condemned it a year ago. The farm separator has come to stay, and many creamery men are encouraging their use, because they get a much better product where it is used. C. P. Goodrich, of Fort Atkinson, Wis., a veteran dairyman, and one of the best posted men in the dairy industry, stated in his address before the convention that the general use of the farm separator was sure to come, and farmers should have to fall into line or be left behind.

Manitoba's Dairy Produce.

C. C. Macdonald, Provincial Dairy Superintendent, gives the following statement of the output of Manitoba creameries and cheese factories:—

The season has been a most favorable one for all parties engaged in the manufacture of cheese and butter. The industry, however, has had some difficulties to contend with. One of the chief ones was the apparent determination of the country merchants to kill the creameries. In many places very high prices were paid for dairy butter (in trade); some have been known to pay 16c. and sell the same butter for 12c. This is a serious mistake on the part of the merchants, as it has a

tendency to increase the output of dairy butter, which is not wanted in large quantities. The prices this year have been exceptionally good. While it shows a decrease in the amount of creamery butter made, the price is such that brings the value up to an increase over last year. The cheese output, so far as figures have come in, has decreased. Fully a million dollars of farm produce will be brought into this country from other provinces, every dollar of which Manitoba farmers should produce.

The following is a summary of production and prices:—

	Pounds.	Average Price.	Value.
Butter—			
Creamery	985,024	18 3-5	\$179,494.46
Dairy	1,151,620	13 94	160,593.52
Cheese	800,084	8.67	69,367.28
Total value of dairy products . . .			\$409,455.26

Last year there were 987,179 lbs. of creamery, and 1,410,285 lbs. of dairy butter made, and 987,007 lbs. of cheese.

Always feed a milch cow after milking and not just before or while the milking is being done. The dust that is raised when feeding will be absorbed by the milk, so will volatile odors from the feed. Most cows will give more milk, if properly trained, when devoting their whole attention to it than when moving backward and forward snatching a bite and being scolded by the milker for not standing still.

Successful Co-operation.

The farmers are, as a rule, slow in engaging in co-operative schemes, but a most remarkable record of co-operation comes from New York. The milk producers who ship milk into the city of New York have formed themselves into a farmers' combination, and 60 per cent. of those shipping milk have joined the combination. Where the farmers are best organized they are getting the best prices for their milk from the city buyers. Whether the association will have cohesiveness to take hold of handling the milk in the city, the other end of the business, remains to be seen. But the success so far has been very large, and the beauty about it is that it has been made by the farmers themselves. The association now represents \$10,000,000 worth of farm stock and property, and controls two thirds of a traffic that exceeds \$10,000,000 a year. When we remember the many previous failures in the line of co-operation, the results are inspiring and go a long way to dispel the well-grounded idea that "farmers can't pull together." There is no reason why they cannot pull together in the operation of a creamery, cheese factory, or, for that matter, any other enterprise. Therefore, let the farmers everywhere take courage and co-operate.

By-Products of the Dairy.

The Utah Experiment Station has been conducting an experiment in feeding the by-products of the dairy to calves and pigs. The following conclusions will be read with interest, especially those regarding the returns made by calves as compared with pigs.

1. Calves may be raised very profitably on skim milk when it is properly fed.
2. From the standpoint of gain in live weight and quality of meat, whole milk is the best food for calves, but it makes too expensive a ration to be profitably fed. Butter fat has been worth 16c. per pound. The gain in live weight of these calves at 4c. per pound returns but 10.7c. per pound for the butter fat fed at 3c. per pound for the gain but 8c. per pound.
3. The calves whose rations were composed largely of skim milk, while they gained one-half pound less per day yet required practically the same amount of dry matter to each pound of gain as did those fed on whole milk, they made just as good use of the food.
4. The calves fed whole milk alone gave a greater proportion of dressed meat to live weight than did those fed on skim milk, and also gave more fat on the carcass.
5. Young calves, up to 3½ months of age, required less milk and less dry matter to each pound of gain than did the hogs. When the calves were five and six months old, however, more dry matter was required, but at least half of it was hay.
6. When fed to calves, fully as large financial returns were obtained for the skim milk as when fed to hogs. With the gain in live weight at 4c. per pound, the calves returned 22c. per 100 pounds for the skim milk and the hogs 22.8c. If the gain in live weight was worth 3c. per pound, the calves would return 5c. per 100 pounds more for the milk than would the hogs.

Sudden changes in the feed nearly always decrease the milk yield, even when the new ration is better than the old. When necessary to make a change in the feed, do so gradually.

Working the Butter.

Prof. Robertson says: "After butter is salted it should be left for two or three hours, to allow the salt to dissolve. Then, by a second working, the excess of moisture may be expelled, the salt thoroughly mixed, and any streakiness in color corrected. It is not necessary that butter to be put in small prints, or for immediate consumption in a local market, should be worked a second time. The second working makes it drier. Care must be taken that the butter be not overworked and made greasy. This may result from the butter being worked at a temperature either too high or too low. Where practicable, it should be worked at a temperature which leaves it in a waxy condition, causing it to bend about one-half towards the under layer when it is being doubled on the butter worker. A temperature of 50° Fahr. will usually put the butter in the best condition for being worked. Sometimes injury results from a larger quantity being placed on the butter worker than can be conveniently handled."

The weakest point in the feeding plans of most dairymen is that the daily ration of their milk cows does not contain a sufficient amount of protein to ensure the largest flow of milk and the most profitable results. Most rations are rich in fat and carbohydrates, but these cannot take the place of the protein compounds where they are deficient. Protein is the material which is at the basis of blood and milk and without which a cow cannot possibly give a full yield of milk.

The greatest yield of milk is obtained from cows that calve in the fall. To get this, however, they require proper care, feed and shelter during the winter.

Where buying why not get the best?

MIKADO

CREAM SEPARATORS

Run on ball bearings and spin like a top. A child of 12 years can operate it. Skims clean as a whistle and can be washed up and put away ready for next time in 3 minutes. Will skim from 27½ to 30 gals. per hour, according to the season of the year. Moderate price. Reasonable terms. Special terms to present buyers. Write to

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MONEY CANNOT BUY...

A better Churn than the "MAPLE LEAF." None better is made. Yet the Maple Leaf Churn is inexpensive. Write for free circulars to the manufacturers,

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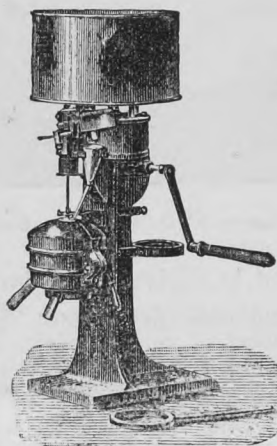
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ON THE MARKET TEN YEARS.

The Alexandra Cream Separator

STILL LEADS.

The improvements made from year to year make it an easy winner in the race for public favor.



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232 King Street, WINNIPEG.

THE AMERICAN

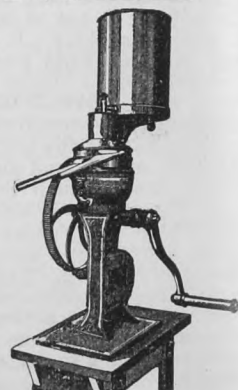
Is the SIMPLEST, CHEAPEST AND BEST MACHINE ON THE MARKET. New improvements for the coming season. Send for particulars.

THE WINNIPEG CREAMERY...

Is a great success. Every patron is pleased with it. A farmer MADE NEARLY \$700.00 from 35 cows through it. Every farmer within 150 miles of Winnipeg could ship cream or milk to us. IT WILL BE OPERATED ALL WINTER. We are now open to contract for milk or cream.

Send for information to

S. M. BARRE, 240 King St., Winnipeg.



Dairying in Minnesota.

Minnesota dairymen are particularly elated just now, for out of five possible firsts, Minnesota butter was awarded four at the dairy show at Omaha. Professor Haecker, of the Minnesota Dairy School, says the number of creameries in the state is 665. Of these 200 are receiving milk on an average of from 800 cows each. They distribute among the patrons \$18,400 each annually, making a total distribution among the patrons of the 200 creameries of \$4,000,000. There are about 200 creameries in the state that receive the milk on an average from 600 cows each. They distribute among their patrons \$12,000 a year, which amounts to \$2,400,000. There are 100 creameries that have the milk from about 400 cows, paying their patrons \$6,000 annually, amounting to \$600,000. There are 50 creameries each receiving the milk from 300 cows. These pay to their patrons \$5,400 annually, which amounts to \$270,000. There are about 435,000 cows contributing milk to creameries in Minnesota, and the receipts from this source is approximately \$9,550,000. He estimates that there are 365,000 cows used in the milk supply, cheese making and home dairying that earn about \$18 per head,

stock and engage in dairying. The same changes are bound to take place here. The farmers can't stop them; they will come sooner or later. They are changes for a better, a higher and more intelligent system of farming. Therefore, the efforts of the farmers should be to encourage the butter factory, the cheese factory, and the raising of stock in every way possible.

A Travelling Skimming Station.

The organization of an industry is a great stimulus to enterprise. As the organization gathers order out of confusion, possibilities of development are seen which were not at all apparent when the industry was in an unorganized state. Opportunity is also offered for the development of the talents of men of ingenuity which would otherwise work in the rut of private enterprise. The gathering of the cream of a district to one factory for manufacture was a first step in the line of co-operation in butter-making. Then came skimming stations in districts where the supply was not enough to warrant the establishing of a creamery. This has worked well in many places, but in England a step in advance of this has been made, taking the work one step nearer the farm.

be some time before such a travelling skimming station will be successful on the prairies. Still such a wagon is capable of making a round of 20 to 30 miles a day and stopping at from 6 to 8 places for skimming.

Feeding to Develop.

Dairymen often say that very heavy feeding burns a cow out, or, in other words, soon breaks her down. This is not always true. If a cow is properly developed and fed, it need never be true. A cow fed a ration that is not balanced, being deficient in protein and rich in carbohydrates, will burn out and not last long. But a cow that is fed a ration rich in protein and somewhat light in carbohydrates will continue to develop for years both in ability to consume food and to give milk. If properly handled, she will not reach her highest development until she is 8 to 10 years old, and should do several years profitable work after that.

Good dairymen also know from experience that a cow well fed this year will give better returns for the feed consumed next year than if she had been fed a lighter or poorer ration. This has a practical bearing now. Those cows that are well fed



Farm of O. W. Bailey, High Bluff, Man.

Mr Bailey's farm is pleasantly situated on the Portage Plains about three miles from High Bluff and seven from Portage la Prairie. His farm consists of 320 acres, of this he tries to have from 150 to 200 acres in wheat every year. He has always gone into mixed farming, having more or less cattle until lately, but now several hundred sheep. He does not summer fallow preferring to sow rape, turnips and potatoes which he thinks a much better plan. When he purchased the place some years ago it was all prairie. Several hundred trees have been planted on the place which makes it look more homelike.

amounting to about \$6,570,000, making the total receipts from dairy products \$17,120,000.

* * *

While Minnesota has done so well, the Dakotas are away behind their neighbor in dairying, although possessing most excellent pasture land and producing millions of pounds of bran, shorts, oats and oil-meal that could be turned into fine dairy products at a good profit. When dairying is mentioned the knowing ones point over their shoulders to the few creameries which have been a failure, and talk of the hard work connected with dairying, the rigors of the climate, and numerous other objections. The plain truth of the matter is that so long as a half crop of wheat can be obtained, wheat only will be the mainstay of the farmers. Only as they are driven out of wheat growing by force of circumstances, as the people to the south of them have been before them, will they turn away from the one crop plan of farming.

* * *

The farmers of Manitoba should not shut their eyes to the gradual changes that have taken place in the states to the south of us, which were once great wheat-growing districts, but have by gradual degrees been compelled to raise more and more

In places where there is not enough milk to pay for establishing a skimming station, or where the supply has to be drawn a long distance, a motor wagon has been devised, carrying a cream separator, etc., and the skimming done at certain points along a given route, where small supplies can be easily gathered.

The idea is a good one, and is meeting with success in England in districts where such a wagon gets a large amount of work to do in the course of a 10 hours' run. Steam is the motive power and a turbine separator, driven by steam, is used. The necessary appliances are also provided for warming and cooling the milk. It is now proposed to introduce these travelling skimming stations into co-operative dairy work in Ireland. While the cost of one of these wagons is considerable, it is much less than that required to establish the necessary skimming stations in a district. Each skimming station has to have a separator and power to drive it, and the outfit is used only a short time each day. With the travelling outfit only one supply of machinery is needed, and it works all day, with the exception of the time that it is travelling from place to place. The reduction in the expense of hauling and separating is considerable and means more money for the farmer. With our sparsely settled country and long distances, it will

this winter and begin the spring work in good, hearty condition will give the best returns for the summer's feed. On the other hand, if the cows are poorly fed this winter, and are in a run-down, weak condition by spring, they will not come as safely through calving, neither will they make anything like as profitable returns for the summer's feed as they will if well fed now. By studying his cows and gradually increasing from year to year the amount of feed consumed, the skilful dairyman can increase his yield of milk. The poor cows will reach their limits in this process of developing much sooner than the good ones. Study your cows, their capacity for consuming feed and their milk and butter yields in relation to the food consumed. Weed out the poor ones.

R. A. Lister & Co. (Ltd.) have purchased the Masonic hall in the town of Morris, and are converting it into a well-equipped creamery.

Milch cows drink 50 per cent. more water than those not in milk. At the New York Experiment Station the milch Jerseys drink over five quarts of water to every quart of milk they produce. Other breeds do not drink quite as much water in proportion.

To Test the Experts.

We are all more or less students of the cow—trying to discover which are the best cows for our purpose, and why. Our ideas or ideals are not always as clearly defined as they should be; we are, as it were, groping in the darkness for more light. We need to study more closely the relation of outward signs and forms of cows to the actual results as given in the milk pail. The Wisconsin Experiment Station are going to try work along this line this winter. Prof. Carlyle, of the dairy school, has asked three leading dairymen to select a grade Jersey that possesses in form, capacity, and temperament their own ideas as a perfect dairy cow. The Experiment Station will purchase the cows, test and handle them side by side. This will to some extent be a test of the dairy judgment of these men. That is not the object, but to test and study the true dairy function and type. H. C. Taylor, C. P. Goodrich and W. D. Hoard, editor of Hoard's Dairyman, are the men chosen to select the cows—men well known for their advocacy of high ideals in dairy cows.

Liquid Food and Milk Yield.

The principal of one of the French dairy schools is the authority for the statement, as the result of experiments conducted by him, that the quality of milk given by a cow can be increased by inducing the cows to drink more water. He says that the amount of milk is proportional to the amount of water drank, and in his experiments the quality was not injured in any way. The cows he experimented upon were in the stable on dry feed. They only gave from 9 to 12 quarts of milk a day, but when the food was moistened with from 18 to 23 quarts of water their milk yield increased to 12 and 14 quarts per day. The cows were allowed to drink all the water they wanted to, besides; in fact, were induced to drink more water by adding a little salt to their fodder. The milk was of good quality and the amount of butter satisfactory. From a study of the results after a series of experiments he came to the conclusion that the quantity of water drunk by a cow was a correct test of the quantity of milk she would give. From the results of his experiments he found that a cow that would not drink as much as 27 quarts of water a day was a poor milker and would give only $5\frac{1}{2}$ to 7 quarts of milk a day, while all cows which drank as much as 50 quarts of water daily gave from 18 to 23 quarts of milk.

This is a new way of testing the ability of a cow, but anyone who has made a study of the habits of a milch cow knows that there is nothing that will cause her to shrink so quickly in milk yield as a shortage of water. In hot weather and on dry pasture she will keep up her flow wonderfully well if she has access to a plentiful supply of pure fresh water. The results of experiments conducted in America go to bear out those of this French experimenter. When cows were given warm water to drink in winter the milk yield was increased from 6 to 8 per cent. This is only another way of inducing a cow to drink more water. On the other hand, drinking ice cold water has a tendency to shrink the milk yield, the reason being that the cow cannot take enough of it. While it may not pay to go to the expense of warming water for milch cows, it certainly would add to the returns if the chill could be taken off the water. A barrel or small tank, holding sufficient water for the milch cows only, might be kept in the stable. The warmth of the stable would raise the temperature of the

water a little if the barrel was filled at one watering time and stood until the next. In connection with this may not the increased returns that some dairymen find from feeding steamed or cooked feed arise in a large measure from the increased amount of water taken by the cows in this feed over what they were in the habit of getting before such feeding began.

American Butter in Japan.

Out of 183,000 lbs. imported into Japan in 1897, the U. S. furnished 73,000 lbs. chiefly from California. The average price paid was 35c. gold. The demand for butter is chiefly confined to the foreign population, and is consequently somewhat limited. "I have no doubt," writes one of the American consuls, "that fine U. S. creamery butter, put up in attractive packages in such a manner as to preserve its sweetness and flavor, would speedily control the market."

Leaking Teats.

Farmers are occasionally troubled by cows having teats that will not hold the milk. A correspondent in Hoard's Dairyman gives his plan of stopping it, which seems based on good sense. It is as follows:—"I will tell what I did to one of my first cows, four years ago. She was a young one, about 5 years old; milked only, highest, eleven quarts a day; the milk leaked away as soon as the udder filled a little. I kept her; as she commenced to freshen again, I gave her all the grain I dared to, four or five days before she came in (she was not fat), and after the calf was dropped, she was not milked for four to six hours. I don't remember just now, but my idea was to let her make room for milk in her body, and I was not mistaken. The first milking she gave two quarts, and milked up to 19 and 20 that season. Have had her four years, and she never leaked her milk any more. I have not had any more cows like it, so I can't assure these, but would surely do it again if necessary."

Rapid City creamery closed the season with over 50,000 lbs. to its 1898 credit.

Anything that will add to the comfort of a dairy cow adds to the milk yield; discomfort reduces the yield.

The output of the Regina creamery during the past season was 25,447 lbs. Of this the mounted police purchased 6,006 lbs., and sales in Regina amounted to 2,599 lbs., leaving a balance of 16,842 lbs., which was shipped to points in British Columbia.

Prairie hay will vary greatly in quality according to the time at which it is cut and the way in which it was made into hay. Even when of the best quality, it is somewhat low in protein and needs the addition of bran, linseed or pea meal to balance it for best results in milk production.

The dairy department of the Kansas Experiment Station has been experimenting with ether as a means of distinguishing between butter and oleomargarine. Take very small portions of butter and oleomargarine, about the size of a pin head, and place in separate spots on a clean piece of glass. A drop of ether placed on the butter will assume a wavy, but somewhat regular outline; while a drop placed on the oleomargarine will have a ragged outline, very much like the appearance of a cog wheel with the cogs sharpened to a point.

Skimmings.

Study the mistakes of this season, so as to avoid them next year.

Milk is somewhat peculiar—the more it is doctored the worse it gets.

Cows like variety in their food—crave it—and do best where they get it.

Cows with fair surroundings can be made more comfortable in winter than in summer.

Bran is a standard dairy food. It is one of the best feeds to use with linseed meal to increase the amount of protein in a ration.

The composition of milk is variable; the ratio of fat to other solids, and that of solids to water, are not constant as between different cows or for the same cow in successive days.

A mixture of two grains will produce a higher yield than the same amount of food given in one grain. Four or five kinds of grain mixed together will usually give better returns than two.

Fat is the most variable constituent of milk, and its variations are independent of those of the other solids; the yield of milk is therefore a better index of the solids not fat than it is of the fat.

The cow does not need expensive shelter in winter, but she does need shelter that will keep her warm and dry, and that will furnish good light and pure air. The best temperature for a cow stable in winter is from 50 to 60 degrees.

The spreading quality of butter is a desirable feature. Sometimes the butter is so hard it will not spread readily. Independent of cold weather, certain foods tend to produce hard butter fat. Oats have this tendency while bran and flax seed tend to produce a soft fat, making butter that will spread more easily.

Succulent feeds in the winter have two advantages. In the first place, they are appetizing, which makes the cow enjoy her feed, and in the second place, they keep the system in a healthy condition and the bowels loose—conditions necessary for the most successful production of milk. A constipated cow is somewhat feverish and gives less milk in consequence.

About 87 per cent. of milk is water and the cow's supply of water should be plentiful and easy of access. If cows are exposed in stormy days while drinking water the milk yield will be reduced—often as much as 25 per cent. It pays well in stormy weather to have the watering trough under a shed, or else carry water to the cows and let them stay in the stable.

Co-operative dairying is making rapid progress in Ireland under the fostering influence of co-operative societies. Irish creamery butter was well to the fore at the London dairy show. Speaking of these exhibits, the Mark Lane Express says: "The feature of the show this year was undoubtedly the Irish exhibits; if sample after sample of these were tasted there was a uniformity about them which could not be found in either of the other classes. Ireland has certainly made a brave show, and her exhibits at this show have taught many an English dairy farmer a most useful lesson. At one time Irish butter came over in nearly untouchable packages; now it was seen that there were not only useful tubs but handsome ones provided." Co-operation is being extended to a great many lines of farm work in Ireland, and is meeting with most encouraging results. Co-operation is not a failure.



While our columns are always open for the discussion of any relevant subject, we do not necessarily endorse the opinions of all contributors. Correspondents will kindly write on one side of the sheet only and in every case give the name—not necessarily for publication, but as a guarantee of good faith. All correspondence will be subject to revision.

Leicester Registry.

M. H., Carman: "Kindly inform me if Leicester sheep are registered in Canada, and if they are, to whom should application be made, and what are the conditions of registry?"

Answer.—Henry Wade, registrar of live stock, Parliament Buildings, Toronto, Ont., has a record for Leicester sheep. The conditions of registry are that animals must trace to imported stock. There is no registry for Border Leicesters in England, and these are the type of Liecesters generally found in Canada. A registry is now being prepared in the Old Country by a society composed of the leading breeders. The fees are fifty cents each when the owner is a member of the Sheep Breeders' Association, which costs \$1.00 per annum. Application should be made to Mr. Wade.

of our pure-bred breeders can help us in this.

Veterinary Instruments.

Rancher, Kamsack: "Please give me the name of a reliable dealer in veterinary instruments, preferably in Winnipeg, as I want to find out where I can get instruments for spaying heifers and castrating colts."

Answer.—W. J. Mitchell, druggist, Winnipeg, handles veterinary instruments. You will find his advertisement in our advertising columns, page 588 this issue.

Incubator Wanted.

J. H. T., Forrest Station, Man.:—"Please advise me where to get a good reliable incubator and the price of it; or, better still, if you could tell me through your valuable columns how to make one."

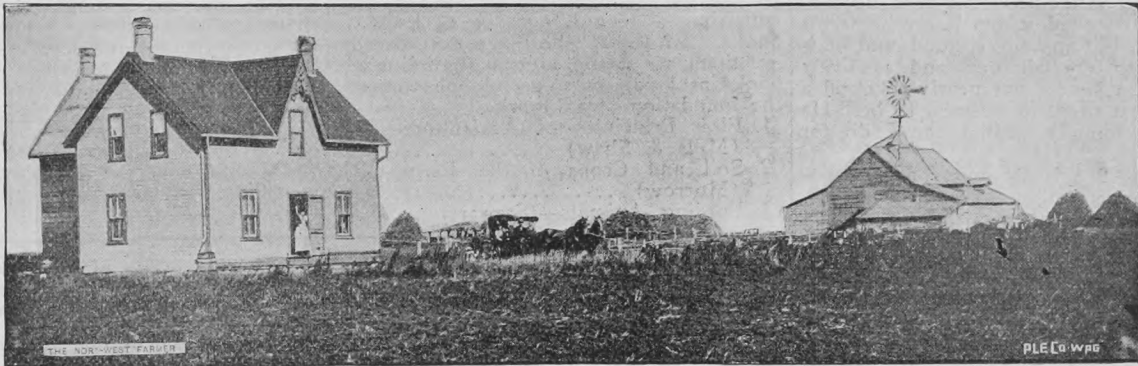
Answer.—For good reliable incubators we would refer you to our advertising columns. We would strongly advise you to purchase an incubator made by a reliable firm than to try making one. Most home-made incubators are unsatisfactory. While a good machine may cost you a trifle more in the first place than a home-made one, you will be saved extra labor and trouble in its working and have the satisfaction of having a machine that you can depend upon; because you get with it a guarantee that the machine will do its work. The manufacturer has a reputation

has been matter for comment among many of the oldest settlers. Some allege that disease of some kind was the procuring cause by which the rabbits got thinned out. That they are a principal article of diet of the wolves is equally well-known, and it stands to reason that when by disease or wolves they are almost cleared out of the country, wolves and foxes will grow bolder in their attacks on all kinds of domestic animals.

Exercise for the Breeding Bull.

M. D. K., Cook's Creek: "How should the breeding bull be managed so as to secure for him the desired amount of regular and vigorous exercise necessary to make him strongly prepotent?"

Answer.—The procreative power of many a valuable sire has been greatly reduced and frequently lost altogether by lack of proper exercise. Where a bull is confined in the stable, he should have his liberty in a loose box, and not be tied up by the neck in a narrow stall, as we so frequently find him. If possible, he should have a well fenced paddock, in which he could have his liberty. The exercise he will get in this, however, is hardly vigorous enough. On a farm where there is a cream separator, we know of nothing better than to make the bull do the separating by working in a tread power. This will give him work; he can also cut feed



View on the Farm of E. A. August, Bates, Man., 12 miles east of Carman.

A Stump Machine.

J. C. Lowrie, Bagot, writes: "If R. L., Oak Lake, will address H. V. Ferris, Bagot, he will receive all the information wanted re stump machine. Mr. Ferris is operating and is also agent for the best stump puller yet used in this province."

Wm. Peel, of Pigeon Bluff, called at the office and informed us that he had obtained a very convenient and useful stump puller from S. S. Kimball, 577 Craig St., Montreal, Que., from whom particulars can be obtained. The cost is small and the machine of such construction that it can be used for other purposes besides pulling stumps, such as moving buildings, etc.

Plan of Poultry Building Wanted.

W. F. C., Manitou: "Can you give me a plan of a poultry building? I want a good one and one which will not need artificial heat to make it warm enough for the production of eggs in winter. I would like the plan of the building to be such that it could be extended on quite a large scale if needed."

Answer.—We cannot lay our hands on plans that just meet all your requirements. We would be pleased if those who have built a good poultry house and found it satisfactory would send us a plan and description of it. Perhaps some

to sustain and will only put out goods that will do the work required of them.

Gapes and Roup.

R. Wightman, Owen Sound, Ontario, writes:—"In the November number of The Nor'-West Farmer a subscriber asks for the best remedy for gapes and roup in fowls. I would like to say that Mr. I. C. Benner, a poultryman of this town, found Little's Sheep and Cattle Wash a sure remedy for these troubles. He mixed a teaspoonful in a pint of water and gave a teaspoonful of the mixture as a dose. He injected it into the throats of the fowls and put it into their drinking water."

Rabbits Dying off.

G. B., Miami:—"It is a generally recognized fact that once in about every seven years a remarkable mortality takes place amongst the rabbits of this country. We have heard it stated that this is one of their off years, and that this decrease amongst them, depriving the wolves of one of their principal sources of sustenance, has been largely the cause of the boldness of late of these troublesome brutes. We wonder how much truth there is in the report?"

Note.—That the number of rabbits has fluctuated to a very noticeable extent in Manitoba ever since the time of settlement

and do numerous other jobs requiring a little power. This plan is being largely followed on dairy farms. Separating twice a day, churning and other little things gives a nervous, troublesome bull sufficient exercise to keep him quiet, and makes him much more easily handled. Another good plan is to break him in to work when young and keep him busy.

An Old Debt.

P. P. owes \$30 for seed wheat, got five years ago, and being sued for it, now wants to know if he is entitled under the Exemption Act to get off scot free. He is working for wages. If he has a team to work with, that may be exempt from seizure, as it is the means of his livelihood. Not long ago a man, who went round to race meetings with a running horse, was exempted by a county court judge as he made out that industry to be the source of his livelihood. But, even if the law of this country does exempt under certain conditions, The Farmer is unwilling to give any man advice that will enable him to evade payment of his just debts and do a man out of his money that has trusted him so long. It would be more manly to try and pay in whole or in part than scheme to beat the man out of the price of that seed. Such exemptions are contrary to the best interests of this country, and the sooner they are abolished the better.

Believes in Brome Grass.

F. W. Godsall, Cowley Ranch, Pincher Creek, Alta., writes:—"I threshed out about 7,800 lbs. of Brome grass seed this fall off 20 acres, leaving a fine stack of good hay besides. Nothing too good can be said of Brome grass. It grows anywhere and catches easily and stands the drouth, while a good watering from a ditch in a dry season will do it good. Mine was ready for hay, 36 to 42 inches high, from 2 to 4 tons to the acre, by July 1, before the rain broke up the drouth. If I had cut it then, I think I should have had a second cutting; but I let it stand to ripen its seed. I find it chokes out all weeds—even wild roses are overgrown by it. I find it now growing among the bunch grass, where spilled from wagons, and as our prairie grasses only cover about 50 per cent. of the soil there is room for the Brome. It is the first green grass in spring and the last in the fall, and stands eating down. I have now 50 acres of Brome grass at various ages, and shall sow more. My seed will be for sale. *Agropyrum tenerum* also does well with me, but I prefer *Bromus inermis*."

Note.—For the composition of Brome grass hay, threshed and unthreshed, see article on "Analysis of Brome Grass Hay" in another place in this issue.—Ed.

A Lazy Dog.

J. T., Ste. Anne's:—"My dog used to be a good watch dog, but lately he seems to be dull. His appetite is good, and he is around with me all day and is lively enough then, but is not nearly so good a watch dog at night as he used to be. He sleeps too soundly. What can I do for him?"

Answer—All animals must have sleep—a dog is no exception. You cannot work day and night, neither can the dog. He is around with you all day and gets sufficient exercise to make him tired and sleepy at night. Use judgment; arrange your work or the dog's work so that he gets his rest in the day time, and he will be spry enough at night.

Granary and Implement House.

W. H. B., Percy: "I intend building a stone granary and implement shed next summer. The granary will be about 28x44 outside, with an implement shed behind it, which should thus require only three walls, with a large door in the centre of one wall to take the implements in and out. I would like to elevate the grain into the granary from the ground outside by a small horse-power, as simple as possible. I have never seen it done. Please give me all the information you can in The Farmer."

Answer.—This inquiry was received just as we go to press, and too late to give any plans. This is an important question, and we would like to get the benefit of the experience of those who have built a granary or an implement house. The Farmer will be pleased to receive a plan of these buildings as built by any of its readers.

The list of Shorthorns exported from Britain, with certificates of pedigree, between July 27 and November 1, is as follows: Australia, 1; Canada, 19; France, 1; Germany, 10; South America, 176; United States of America, 35. Total, 242.

Hall Bros. and McCormick, Portage la Prairie, are feeding there 100 head of cattle for beef. They have taken well up to 200 to St. Paul, Minn., where they are, owing to the lower cost of feedstuffs, be able to put on beef cheaper than in this province.

Birtle Farmers' Institute.

The Birtle Farmers' Institute had a very successful banquet on the evening of November 29. Birtle is noted for its fine spreads, and this one adds more laurels to the abilities of the enterprising little town. The object of the banquet was to have a meeting of a social character and to arouse interest in the institute meetings for the winter. Hon. C. J. Mickle, in response to a toast to Manitoba, made a happy and pleasing address. Hugh McKellar, chief clerk of the Department of Agriculture, made a most pleasing and instructive address. He pointed out the value of the institutes to farmers and called them the farmer's school. His speech was much appreciated and some of the points given will be found in another place in this issue. Speeches by local men were good, and altogether the members of the institute have reason to be proud of the results. A representative of The Nor'-West Farmer was present and made a few remarks. If the farmers around Birtle will make their institute as successful as their banquet they will have one of the best in the province.

A Farmer's Library.

There was a time when the main requisite for a farmer was physical strength, but more and more brain power is being recognized on the farm, and farmers are gathering a nice library of agricultural books. To those who have not already got them, we would suggest the following books as being most useful ones to make the foundation of a library:

1. First Principles of Agriculture—(Mills & Shaw)\$ 40
2. Soil and Crops of the Farm—(Morrow)1 00
3. Feeding Animals—(Stewart)1 50

4. Stock Breeding—(Miles)1 50
5. American Dairying—(Gurler)1 00
6. Poultry Culture—(Felch)1 50
7. Swine Husbandry—(Coburn)1 75
8. Fertility of the Land—(Roberts).1 25
9. Diseases of Horses and Cattle—McIntosh1 75
10. Barn Plans and Outbuildings1 50

Christmas time is coming. Why not

make a present to yourself, or to your library, if you like, of the whole or a portion of this list of books? The total cost will not exceed \$13. They are all books written by reliable men, and contain many hints and suggestions that farmers can make use of. We feel sure that money spent in the purchase of such books as these will be money well laid out, and will return big interest on the original investment. A more complete list for \$25 or \$50 could be obtained, which would make a most useful circulating library for an institute. An institute could not spend, say, \$10 or \$15 annually to better advantage than in the gradual purchase of a good library for the use of its members.

Norwich Fat Stock Show.

This the first of the great English fat stock shows, was held on November 17. Shorthorns and their grades had the best of it. The championship went to a steer, 1,853 lbs. at 2 years, 6 months old. Another made 2,154 lbs. at 2 years, 11 months old. A black cross-bred heifer, 2 years, 8 months old, and weighing 1,880 lbs. was champion of the show. Four of the best cattle on the ground were sired by one bull, a Scotch Shorthorn. In all, 120 cattle competed.

Fire and life insurance are two things that should never be neglected. The cost is trifling compared with the benefits in case of accident.

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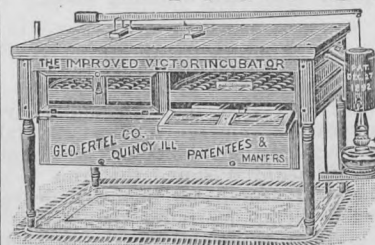
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It is a pleasure to operate, absolutely self-regulating, needs no watching during day or night. Its hatching qualities are second to none. Then adds in success still operation; the simplest, most durable and cheapest first-class Hatcher in the market. A written guarantee is sent with each machine to be as represented or money refunded. This incubator won first prize and silver medal, and the brooder was awarded first prize and bronze medal at the Winnipeg Industrial 1898. Circulars free Catalogue 4 cents.



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Around Carman.

This district has been recognized for some time as one of the finest agricultural sections of the province. Wheat-raising has always been a success, and the attention of the farmers has been largely centred upon this branch of their business. The crops around here have been exceptionally good this year, wheat yielding from 25 bushels per acre upward. On account of the superior adaptability of the district to grain growing, there has been rather less attention paid to stock raising than in many other places. At any rate, the number of breeders of pure bred animals is not great, although many of the farms support pedigreed males and some of as fine grade herds exist herabouts as one could wish to see.

A. & J. Morrison's Stock.

In taking a run through the country around here, we called upon Messrs. A. & J. Morrison, whose farm is six miles east of the town. They have a section and a half of land and good buildings, about twenty head of heavy horses, some pure bred, and fifty head of extra good grade Shorthorns and about forty hogs. Although they have no registered horses, their band includes a number of splendid specimens of Clydesdale grades, the heaviest of which will tip the beam at 1,700 lbs. They were in the very pink of condition and are stock to be proud of. These horses always make their mark wherever shown at the fairs. Their herd of cattle is headed by Sir Walter III, which took third place in the 3-year-old class at the Industrial this season, and is, if anything, in even better shape now than at that time. A photo of this animal appeared in our August issue. As the proof of the pudding is in the eating, so the proof of a bull is in his stock, and many of the farmers in his neighborhood showed young stock of his get, the quality of which spoke louder than words in favor of the sire. The cows are of the very best breeding and a number of them represent some of the best herds in Ontario. Prairie Rose, a red and white yearling, pleased us very much. She is a good handler, with deep chest and broad, straight back. We also noticed a red six months' old heifer calf of blocky build, with a good skin. She is a good calf for her age. Coming to the Berkshires, we found in the pens thirty-five pure bred. All were good, strong looking animals of various sizes, and the aged boar is a particularly good one.

Forest Home Stock Farm.

The name of this farm and that of its proprietor, Andrew Graham, of Pomeroy, are both familiar to our readers. We took a run out to his place, which is situated midway between Carman and Roland. As he was busy threshing at the time, we could only get his divided attention, and consequently had to pass over many points which would have been of interest. Mr. Graham is one of the men who has done a great deal to improve the stock of this country by bringing out a number of choice animals from the east. These include a lot of his present stock, as well as some splendid animals which we have seen in other herds throughout Manitoba. One

of the first things we wanted to see was Robbie O'Day, his Shorthorn herd bull, now rising three years. This beast weighs about a ton and a tenth, and is one of the very foremost of his class in the province. He is a rare one, not only on account of his own intrinsic worth, but also as carrying in his veins the blood of some of the best Shorthorn families. He was bred by Joseph Redmond, of Peterboro, and got by Prime Minister, out of a Challenge dam. He is thick and long-bodied, with very long hind quarters and a remarkable amount of lung capacity. He also has an unusually broad, even back, an ideal head and shows about the correct amount of bone. This bull will disappoint us if he does not prove one of the most useful in the province. Out in the fields we saw his cows. There are about 20 pure bred Shorthorns on the farm, most of which are breeding. We did not have much time to look over them, but a glance through them was sufficient to show us that there were some very strong numbers here. Eleven of them have been selected from the eastern herds. The Russells, Richmond Hill; A. Johnston Greenwood; J. I. Davidson, Balsam; Graham Bros., Ailsa Craig—these are some of the breeders whose stock we found here. Bertha XI, bred by the last named firm, has done a lot of prize-taking and is still a well-preserved and symmetrical old lady. Many others of the cows merit special remark. A 10-months' old red heifer by Golden Royal, imported from Ontario by Mr. Graham and now owned by J. H. Kinnear, of Souris, is a wonderfully straight, snug one. Three young bulls of about the same age, and some younger stuff, were good stock and were in growthy, thrifty shape. In the pig pens we found about 50 Berks and Vorks—about half of each breed. They were here in all sizes. Snowman, one of the Yorkshire boars, is a mammoth animal, with a very long body. A string of tickets taken at Winnipeg in various years decorates a good-sized space on the wall. About 150 Barred Plymouth Rocks were running about the yard. They were strong, plump fowls, and many of them showed superior marking. This season 1,000 bushels of Purple Top Swedes and 1,500 bushels of Graystones were grown and were a splendid crop. The Graystones were grown on an acre and a half. We were also interested in the grove of six acres which lends a name to the farm. It is a plantation of poplar and maples running around the north and west of the buildings. The maples were planted 13 years ago and are now 18 or 20 feet high. The poplars are their juniors by one year, but are about 25 feet tall. The trees are in rows 10 feet apart. There are practically no gaps through death, having been cultivated the first few years. About four years after starting a couple of dressings of manure were given, but since then they have hoed their own row. The grove is really one of the finest artificial ones we have seen anywhere in the province.

D. W. Mills' Stock Feeding Methods.

D. W. Mills has played a rather important part of late years in connection with the stock raising industry here. Not only is he the buyer of the district, but also runs a farm and goes a great deal into feeding for the market. We took a look over his place to see what was being done and pick up any points of interest. At his stables in the town we found a number of teams of splendid work horses, which looked as though they received the proper kind of attention. Not many months ago he purchased the 8-year-old bull, Duke of Hereford, bred by Sir Donald A. Smith. He is a very low-set, square animal, and should produce good

stock with any kind of proper mating. Here also we saw a couple of the prize fat steers at Winnipeg this season. These animals weigh over 1,500 lbs. each, although they were only 2 years old last April and May. Here, too, were about 150 hogs of all sizes. There were a number of pure bred Berkshire sows, a Poland China boar and five sows, beside a pair of Tamworths, which had newly been brought from Ontario. The breeding sows were all good pigs. Hitherto he has been using Berkshire and Poland China blood exclusively, but is now looking for a more marketable animal and intends crossing these breeds with the Tamworth. They have a good warm pen, and have the run of a yard. Wet feed is fed the fattening pigs inside the pen, but outside, upon a clean platform, a self-feeding box is placed, where dry feed is kept on hand all the time. The self-feeder consists of a V-shaped box, with an opening in the bottom, fitted over a feed-trough in such a way that pigs can eat from either side, and which lets down the feed into the lower part as it is eaten out. A lid protects the meal from the rain and extends in such a way as to cover the feeding trough, keeping it dry in all weathers. To this the pigs always have access, but it is a question whether keeping feed before them all the time, and thus tempting the animal to surfeit, is really the best plan after all. One point in its favor, however, is that there is no fear of the lighter animals being starved by being crowded out, but this could be overcome by culling out the weak ones and feeding them by themselves. In poultry he has two varieties of Games, Buff Cochins and Pekin ducks and turkeys in plenty. Just outside the town, and right on the banks of the Boyne, are the cattle stables, where he winters his shippers. Here we found about 200 head of good cattle, which had been put in for winter feeding. The stables are rough buildings, partly cut into the banks of the river and are made of poles and other rough material, covered with straw. The inside of each is divided into compartments of about 25 ft. square, and after the rough weather sets in the cattle are confined and not allowed to run out. They are not tied. Water can be run to them in troughs. The hay is fed into racks from the roofs, which are on a level at the back with the bank. One of the poorest features of these stables is the inadequate provision made for lighting. Chop is fed, beginning with about five pounds and gradually increasing until 20 pounds per day is given. Turnips will also be fed in small quantities, but all that

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Will not scratch the most delicate article.

can be raised can only be used more as a medicine than feed among so large a number of cattle.

A few acres of corn was also grown this year, and was well liked as a crop. Although to all appearances it had been dry when put up, no precautions were taken against it heating in the stack; the whole mass was piled together, with the result that it was fast becoming a very hot subject to handle. In fact, it is one of the warmest things we know of anywhere. We do not recommend this method of handling corn. A large number of other cattle were expected at the stables here in a few days. Besides these, we saw about a hundred of this year's calves out at Mr. Mills' farm, where they were being wintered. Last year, we were told, about a thousand cattle were handled all told, but about five or six hundred is expected to be the number for this season.

Mr. Huston's Stock.

We took a run down to the farm of M. Huston, one mile south of the town. He told us he had no name for his farm, but we suggested that it be called "Straw Bank Farm," as the most conspicuous object to be seen in approaching is a wall about 300 feet long and 15 feet high made by piling a wall of straw about 3 feet thick between two rows of poles. This fortification forms an angle by running across the north and west sides of his buildings, and Mr. Huston says he could not get along without it. His Shorthorn bull, Edward Blake, is a large 5-year-old roan animal, weighing over a ton. Besides some young stock, he has also some few pedigreed cows, but they were not around at the time of our visit. He has also one of the few flocks of sheep about here, with two good pedigreed Oxford rams and some good ewes. We also noticed enough poultry of all kinds to make Christmas dinners for an army. A fine bluff of maples protects the house to the north, and we noticed a couple of Transcendant crab trees which Mr. Huston told us had raised four pails of fruit this season. These trees have never winter-killed with him, although they do not thrive so well in the higher altitudes or in many other localities.

Wm. Garnett, of Bates, was also called upon. We wanted to see his 2-year-old Polled Angus bull and find out how he was pleased with him. The bull is a well-made animal, and with the care which his owner will give him this winter, should come quite up to the mark. He was bred by P. Robinson, of Carman. We noticed that this year's crop of calves, particularly two very late ones, which were left on their mothers, are a very promising lot, and the owner is well pleased with this infusion of blood.

Between Carman and Rosebank we called upon Wellington Hardy, whose Ayrshires and Yorkshires may be remembered by some of the visitors to the Industrial. He has good buildings, with yards enclosed by Page wire. His yearling bull, St. Patrick, is a large animal of the breed, well made and in good trim. He was bred by Smith Bros., of Fairfield Plains, Ont. He has a pair of 3-year-old heifers which are beauties. Jessie is looking well, being in better shape than when she took first place at Winnipeg, as she was then in the middle of a heavy milking season. Pride of Percy, which took 2nd place at the Industrial, is also developing into a superior cow. Both of them have had calves at two years old. A nine months' old heifer, well marked, with a great deal of white, is a very shapely, promising little animal, and is, as are all the others, very docile. Among

his grades he has also a very nice Ayrshire grade heifer. His Yorkshires, which did so well at Winnipeg and Carman fairs, were in good growing and breeding shape. Mr. Hardy's pure-bred stock are not numerous, but he is carefully following well-defined lines, and what he lacks in quantity is made up in quality—the most profitable and pleasurable plan for any pure-bred stockman to follow after all.

A. R. Ruth, of Barnsley, was visited north of Carman. This farmer is one who is following diversified lines. He owns a half section, and not only grows wheat, but does a good deal along the lines of dairying and stock raising. He is highly pleased with the results and evinced a little pardonable pride in telling us of the success which has attended his labors. He thinks that at least enough stock should be kept to balance a farmer's operations, to feed a considerable portion of his produce at home, and to husband the natural resources of the land. He thinks that the farmer who does this will be the most likely to live though thick and thin and be found "still in the ring" in years to come. Last season he kept 14 cows and made cheese and butter. As there is no creamery or cheese factory available, the produce had to be manufactured at home, but one of the family has taken a course in the Dairy School, and the more approved methods are kept in view. The past season the cows yielded \$20 per head in dairy produce—not large figures at all, but when this is added to \$8 or \$10 each for so many calves, the results are not too bad. Turnips and mangolds are grown, and Mr. Ruth is highly pleased at his success with these crops. Last spring it was noticed that the calves whose winter rations had included a few roots thrive much better after being turned upon the

grass than those which had received none. Corn was a little tried this year, and is hopefully regarded. Mr. Ruth is also something of a pig raiser, and a goodly sum was named as the returns from steer and hog sales this season. Berkshires of a good type are kept, and although there may be a little dirty work entailed in attending to them, the owner says he finds the money he makes in this way as clean as any that comes his way. The different pens have doors which allow the pigs the run of yards during the summer. Pure-bred sows have not been kept so far, but Mr. Ruth is so well pleased with pig raising that he intends to go into it even heavier in future, and will secure pedigreed sows, as the sale of good animals as breeders provides an additional resource. To put it in brief, Mr. Ruth finds that mixed farming pays.

Miami.

Our correspondent called upon T. Gosney, a few miles west of this town, and inspected his stock of Berkshires. He keeps a couple of dozen pure bred animals, his original idea in securing the best blood being to get the most profitable pork-maker, rather than a line for sale as breeders. He argues that a really good animal is cheaper for this purpose at a good price than a scrub taken as a gift, and that the best is none too good. Though Mr. Gosney has not as yet very well-fitted quarters for his porkers, we found that he had some well-selected stock. His 2-year-old boar, Wellington, bred by F. W. Brown, Portage la Prairie, is a very large, strong hog, with a long deep side. A yearling, Lord Nelson, bred by J. A. McGill, of Neepawa, is a grandson of Baron Lee, of Snell renown, and is a promising pig, with



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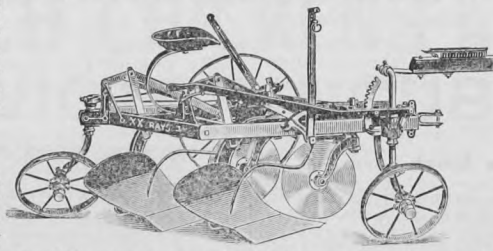
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a little less proportionate weight in the shoulders than is usual. Miami Lily is another of Brown's breeding, and is a good brood sow, with a nice litter. Moss Rose is one which was secured from R. McKenzie, High Bluff. She was in low flesh, being an extra good suckler and having just brought up a large even litter. Mr. Gosney has struck a long-bodied type of the description sought for by the packers. We might also add that he has some very nice Barred Rocks.

Poplar Grove Farm, Deleau.

On a recent visit to Deleau we called at the Poplar Grove Farm, owned by J. E. Marples, well-known to our readers as a breeder and exhibitor of Herefords. His farm, which is located some three miles southwest of the town, consists of 800 acres, and is divided about evenly into grain land and pasture and hay meadows. The buildings are commodious, well built, and painted, and are protected from the winds by a quantity of timber and one or two sheltering hills. The outbuildings consist of a horse stable, surmounted by a windmill; a cattle stable large enough to accommodate all his cattle; a large sheep shed, an implement house and a granary.

labor necessary to the cultivation of these crops sufficiently prohibitory to prevent their being largely grown. His "Spotless of Ingleside," the 2-year-old bull, which heads the herd, is a fine fellow, and was imported from the Ingleside stock farm, Quebec. He was the winner of the sweepstakes prize offered for the best Hereford bull, any age, at Winnipeg this year, and comes from a line of prize-winners, his dam being a sweepstakes cow at the Eastern fairs this season. He is a thick, growthy, evenly built bull, and shows rather more weight behind than the generality of Herefords. Although the females are a good, strong lot of large-bodied animals, and any one of which might cause an owner to feel proud, we singled out a couple of extra handsome ones as being especially well put together. These were "Daisy of Ingleside," a 2-year-old, and "Duchess of Poplar Grove," a yearling. The former is a very heavy animal and was another importation from the Ingleside farm. As a yearling she took first place at Toronto, London, Ottawa and Montreal last year, and was also in the first prize Hereford herd at the same places. She is an extra square animal both in front and behind, and with her evenness of flesh and growthiness will carry a very great deal of beef. The yearling is a beauty, straight as a pin,

is made of the same material. We asked if the fence was proof against wolves and were told that for about the first year it had been, but later the beasts learned to jump through it until it no longer kept them back. Besides being an extensive and thorough-going farmer, Mr. Marples is a photographer of no small merit, and between himself, his helpmeet, the family of eight daughters, have a splendid collection of photos and some of the best lantern slides we have ever seen. A particularly pleasurable evening was spent. We might just mention that photography is found to be quite a convenience in connection with his large shipping trade, as, although it is almost impossible to flatter an animal or even represent it fairly in a photograph, still a good picture shows the marking and more or less of the general make-up of the animal, and the question naturally arose in our mind if photography might not be used more among our breeders for purposes of sale.

North of Rosser.

A short time ago a representative of The Farmer had the pleasure of a look through the comfortable buildings of Walter James, $4\frac{1}{2}$ miles north of Rosser. Mr. James came to Manitoba in 1871, and thinks it a country full of great possibilities. One of the first things he did when taking his present place was to plant a windbreak of maples to the west of where his buildings were to be. A nice lawn has also been laid out, and the grounds around the house set out with ornamental and evergreen shrubs and trees. Mr. James believes in making his home as attractive, and providing as many of the comforts and pleasures of city life as it is possible. Lawn tennis, croquet, wheeling and photography are favorite pastimes at this cheerful abode. We think Mr. James is right. It takes a little labor to put the grounds around the house in proper shape, but it can be done at small expense and means much in the enjoyment of home—more than most parents are aware of in fostering the love of home and farm life in the breasts of their children. Plenty of flowers and a nice garden make up the surroundings of this comfortable farm home. In cattle, Mr. James keeps pure-bred Shorthorns. The foundations of his herd have been gradually acquired, and now he has a nice lot of useful stock, the young bulls of which are eagerly sought after by farmers from the surrounding country. At the head of his herd is Rosser Lad, whose sire is the famous Indian Warrior, and he is out of one of Jos. Lawrence's good cows, Prairie Queen. He is a red bull of good quality, handles nicely, and, judged by the stock he is leaving, is a credit to the famous family to which he belongs. Of his females, Lucy of Beresford, a red cow of the thick-fleshed, smooth kind, is worthy of mention. She has a splendid calf by Rosser Lad at foot. She is by the imported bull, Windsor, and out of Lucy May. Mahtab, a fine red cow, by Sir Walter of Beresford, and out of Priscilla 2nd, is a good cow, with a choice bull calf at foot by Rosser Lad. Muriel 2nd, a roan, Waneta, and Murrello, a red, whose calf has just been sold to A. G. McDonald, are typical cows, such as are profitable for a farmer to keep. He has a nice lot of calves—all red ones—straight, smooth, blocky fellows, such as should please the eye of any lover of good stock. Mr. James has also made a start in Berkshire swine. His foundation stock was Belle of Rosser, 5156, from Mormon Lad, a boar bred by S. Coxworth, Whitby. Her dam is Molly, by a boar of Snell's breeding. Belle of Rosser has done well with him, and he now has a nice lot of pigs. Mr. James has a nice lot of poultry and



Some of the Buildings and Stock of the Poplar Grove Farm, Deleau, Man., J. E. Marples, Proprietor.

Although a quantity of grain is grown, the stock raising branch of Mr. Marples' business was what most interested us, and we found great interest in looking through his herd of cattle and flock of sheep. About 60 head of cattle are kept and two-thirds of these are pure-bred Herefords. Visitors to the Industrial fair will remember that the representative lot which so ably sustained the reputation of the Poplar Grove farm were very fine animals, and we were pleased to see so much uniformity throughout the whole number. At the time of our visit the cattle were grazing out in the pasture field, and their coats plainly showed that they had been stabled but very little this fall. Still, the whole herd was in very good flesh and looked hearty and strong. In the stables Mr. Marples prefers stanchions to the chain or rope, and almost all of the stalls are fitted up in this way. Although it may be contrary to the creed of most stockmen, he believes that the stanchion affords more safety and freedom to the animal, and he also finds it very much quicker to handle a large herd in fastening and loosening than the ordinary tie. Roots are grown to a small extent and have always done well, and he finds them a very great aid in feeding on account of their alterative properties. However, like most other western farmers, he has found the amount of

short-legged and blocky, possesses a skin like velvet, and carries a model head. She was the first prize heifer in her class at Winnipeg this year, and we predict that she will make a cow of repute. There was an ample lot of young stock of both sexes and all ages coming on nicely. Besides cattle, Mr. Marples keeps an aver-



Poplar Grove Farm Granary.

age of about 300 head of sheep of the Oxford and Shropshire breeds, and has many very good woolled animals. A quarter section is fenced with the Page fence, which, everything considered, he thinks is the best and most satisfactory fence in the long run. A splendid corral near the barn

a good poultry house. He has been trying some fattening experiments with a lot of 28 half-bred Plymouth Rocks. He fed boiled barley and secured gains that makes him certain that fattening poultry will be profitable for the farmer. He did not market them, intending them for his own use at Thanksgiving and Christmas times.

By the Way.

One farmer near Miami had his wheat so badly stacked that he sold the entire crop to his neighbors for feeding purposes at 35 and 40 cents per bag.

* * *

What am I going to do with this winter's crop of manure? On what fields am I going to get it, and how and when am I going to get it there? These are questions as important to the farmers just now as the foreign policy of Britain or the discovery of the north pole.

* * *

Grain and hay growing are good lines of farming. Mixed farming is even better. It manufactures the raw products at home and turns out finished articles in the way of beef, pork, butter, cheese and eggs. In this, as in every other line of business, it pays to keep the profits of manufacturing instead of giving them to someone else.

* * *

The other day, when crossing the Assiniboine river in the cars, we noticed a farmer feeding his stock on the ice. On inquiry we found that this was his regular plan of feeding every winter. The feed is all drawn and fed to the stock on the ice. In the spring his manure goes with the ice, and he is saved the trouble of drawing his manure away from his buildings—in fact, is saved a lot of trouble. We haven't quite decided yet whether this farmer is a cute one or a very foolish one. We have no doubt that he thinks he is a very cute one, but we are inclined to think he is otherwise.

* * *

Weeds are a little out of season just at present—we wish they always were—but good ideas as to how best to deal with them are always at par. Recently we were in a village postoffice where named specimens of several of the most virulent were kept on public display. We do not know who caused them to be there, but although the scheme may not be at all a new one, we liked it very much. Nobody likes a foe in the dark. Some—perhaps not a few—of the farmers do not know the names of half the weeds on their farms, and this seems to be about the best, simplest and most practical way of setting forth the identity of these pests. Would not the Farmers' Institutes perform a good deed at their coming meetings by arranging this simple matter, as far as possible in such a way that during 1899 no farmer need have any doubts as to "what's what."

* * *

During the next few weeks large numbers of farmers will be leaving Manitoba to spend a holiday in the east. Brothers, fathers, friends and strangers will be after information as to the "Golden West." When you meet these be candid and truthful. Do not decry the country for fear that some old neighbor will come out and take the quarter section which now furnishes your cows with free pasture. That will be taken soon, anyway. Don't tell ridiculous goblin stories of the "Wild and Woolly West," on the one hand, or ridiculously exaggerate the wealth of it on the other. The day for these has passed. Do not be discouraged or get mad if a few soft-handed harvest excur-

sionists who have gone back have run down the country. Make allowances for these. Present matters just as they are. A few good photos are a good thing to take along. We might suggest that a few copies of The Farmer, with its engravings and carefully edited columns, are not a bad thing to hand around. We may criticize or laud the government's immigration policy, according to whether we are Grit or Tory, but, after all, the silent influences placed in the hands of all our people are really the mightiest forces in this matter.

* * *

New Year's resolutions will soon be in order. We would like to get the ear of every one of our farmers and farmers' wives for a minute or two, just to whisper a few words about a little matter which is worthy of a good deal of consideration. It's a very delicate subject, too. We refer to cleanliness in the homes. While Manitoba has thousands of beautiful, cheerful, bright farm homes, plenty good enough for the reception of a prince, there are (oh, so many!) others where it would be almost sacrilege to use any of these adjectives. Here we find the floors unscrubbed, the stove of a pea-straw shade, the walls dingy, smoked and dirty, and, perhaps, punctuated by a few awry pictures or relic calendars, and so ad infinitum. During the daytime life is at low ebb, but a few nights which we have been forced to spend at some of these places causes our minds to revert to the old poem which commences "Oft in the still night, ere slumber's chain has bound me." But we never like to dwell upon these things, if, happily, they do not dwell upon us. How much pleasanter it is to have an attractive home? Then life is worth living. It is just as easy to have things nice when we get used to it. There are many of our readers who can make improvement along many lines in this connection. Between now and New Year's think out all the many improvements that can be made to make home more cheerful and life happier—and then make them. You will be the gainer.

Bucket for Dipping Water.

A correspondent in The Epitomist gives the following plan of arranging a sink on a bucket used for drawing water:—

A, bucket; B, bail; C, weight to sink; D, wire holding weight; E, loop to keep rope out of water; F, rope. Get a large iron bur or nut, or other piece of metal. Pass a small wire through it and fasten to bail of bucket at handle. The weight



remains on our well-bucket all the time and never fails to sink it. The loop E is also of wire, and by its means the bucket can be sunk and filled without wetting the rope or the snap which fastens rope to the bucket. This arrangement is very handy on cold days.

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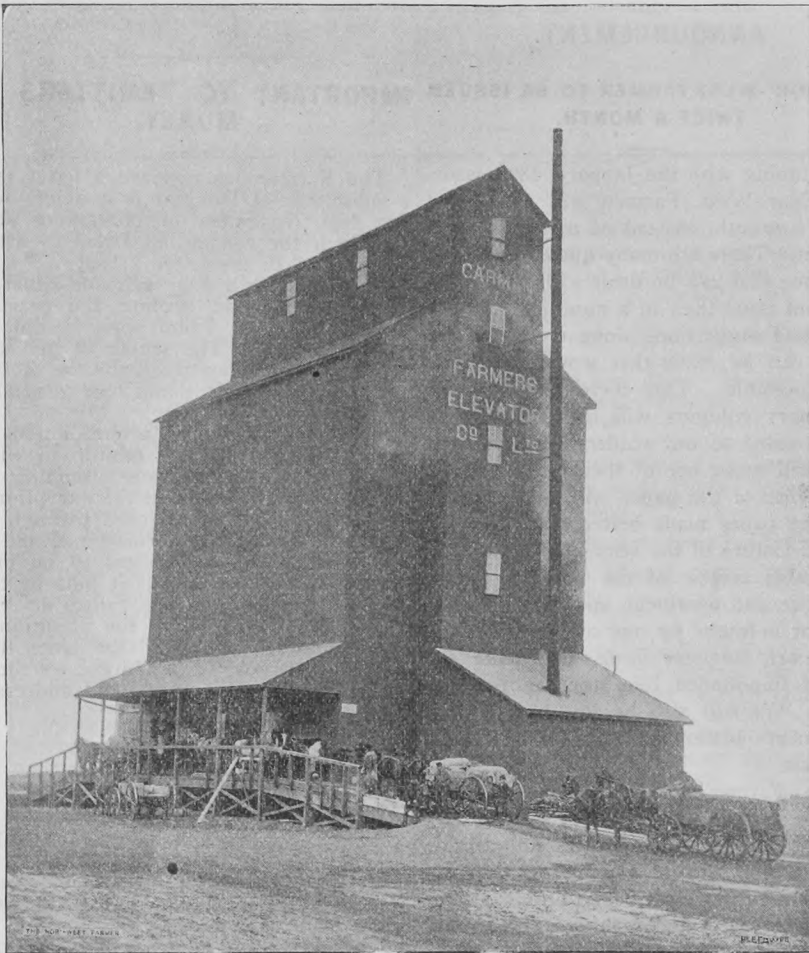
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The Carman Farmers' Elevator.

In a land like Manitoba, where the production of wheat occupies so large a place in the attention of the farmer, the very best facilities obtainable for handling, shipping and marketing the raw product are none too good. Any undue cut in the price paid, or any combination of circumstances which do not offer to the producer the greatest freedom in disposing of his grain becomes sources of enormous loss when it is considered that they affect the whole community. As a safeguard to the interests of the farmers, and as a means of offering the greatest freedom, we believe the farmers' elevator scheme is about the best yet tried. Probably the largest in the province is the one at Carman, and, thinking that a few facts as to its success might be of interest to

a large safeguard against rings in the market, the undertaking has proven a very satisfactory one as a business investment. The storage room is divided into forty-seven bins of various sizes, and this season, outside of the use made of it by the farmers who were storing grain, no less than six buyers are using its bins. The rates charged are the usual prices of one and a half cents for the first thirty days and half a cent for each succeeding month. An average of three men are required to operate it. A crusher is also run in connection and has paid very well. Last season, realizing the scarcity of grain feed amongst the farmers, the company made quite a spec. by buying five carloads of corn, grinding and retailing it. Carman is generally considered about the best wheat market in Manitoba, and there is no doubt that the presence of the Farmers' Elevator is at least partly accountable



The Carman Farmers' Elevator, 1898.

farmers in other localities, one of our representatives called upon Mr. Thos. Keringham, the able secretary, and secured some rather satisfactory information.

The elevator, which has the large capacity of 60,000 bushels, was built in 1891 by a joint stock company, which called itself the Carman Farmers' Elevator Co. Shares were sold at \$50 each to the amount of \$13,500. The cost of the building and equipment ran up to \$17,000. The earnings, over and above running expenses, of the first three years, including the seasons of '91-2, '92-3, and '93-4, were occupied in paying off the \$3,500 not subscribed in stock. Since that time an average of ten per cent. dividend has been declared, running for the season of '94-5 at five, '95-6 at twenty, '96-7 at seven, and '97-8 at eight per cent. Thus it will be seen that outside of the options in selling and storing which accrue to the community through its presence, and its acting as

for this fact. Let any abused localities remember that the old saw which declares that "What man has done, man can do" holds good in regard to communities as well.

A very fine sample of White Fyfe wheat grown by Mr. Davis, north of Whitewood, has reached us. It weighed 62 lbs. to the bushel, but if it had been dressed more closely would have made a higher figure.

The Clay-Robinson Live Stock Report says that recently four carloads of fat cows were shipped from New York to Chicago and sold at a profit. The firm has itself sold cattle shipped west from New Jersey. Hog prices are reported higher at Chicago than at Buffalo, and on different occasions this firm has in the last year sold sheep from Buffalo. The splendid organization of the slaughtering and distribution of those meats is credited for this change.

Further Improvements in Production.

Prof. Robertson, in his report, says:—A milking cow is a sensitive animal, and responds quickly in her milk yield to favorable or unfavorable conditions. A comfortable stable is essential to profitable winter dairying. The requisites are that the stable be well lighted, and moderately warm. The temperature should not go below 45 degrees, nor above 65. It should be kept clean and the cows must be kept clean. Caring the cows once a day in the stable will often increase the yield of milk per cow, and add as much to the net revenue from the herd as though the price of butter was raised two cents a pound. An uncomfortable condition will prevent a cow from giving her maximum yield of milk, and will not conduce towards letting milk be of the best quality. Where the cow stables are old and badly constructed, they may be made at least comfortable in a temporary way by nailing boards around the inside, and stuffing closely between them and the outside wall with straw. It is a good plan to whitewash the inside of the cow stable twice a year. That practice in the stables of Great Britain has contributed greatly to the healthfulness of the cattle, and doubtless also to their productiveness.

To be able to manage one's business in such a manner that family and neighbors are impressed with confidence, is not the work of a novice.



In the old frontier days hundreds of pioneers were tortured and burned at the stake by cruel Indians. The tortures endured by these martyrs must have been something horrible. There are thousands of men to-day who are being slowly tortured to death at the stake of disease. Their

bodies cry out but in a language that only the sufferers themselves can hear. When a man is suffering in this way his body cries out with an aching head, a sluggish body, muscles that are lax and lazy, a brain that is dull, a stomach that disdains food and nerves that will not rest.

A wise man will heed these warnings and will resort to the right remedy before it is too late. Dr. Pierce's Golden Medical Discovery makes the appetite keen and hearty. It invigorates the liver. It promotes the natural processes of secretion and excretion. It makes the digestion and assimilation perfect. It purifies the blood and fills it with the life-giving elements of the food. It tears down old and worn-out tissues and replaces them with the firm, muscular tissues of health. It is the great blood-maker and flesh-builder. It is the best nerve tonic. It cures 98 per cent. of all cases of consumption, weak lungs, bronchitis, lingering coughs and kindred ailments. Found at all medicine stores. Accept no substitute that may be represented as "just as good." The "just as good" kind doesn't effect cures like the following:

"Twenty-five years ago eight different doctors told me that I would live but a short time, that I had consumption and must die," writes Geo. R. Coope, Esq., of Myers Valley, Pottawatomie Co., Kans. "I finally commenced taking Dr. Pierce's Golden Medical Discovery and am still in the land and among the living."

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When you pay your subscription, watch the name label on the next two issues which you receive. On the first issue following payment, it might not give the correct date—the type-setting machine may make an error and the proof not be corrected before mailing day. But if the date is not correct on the second issue please notify us by postal card.

Look at the date label now. Are you in arrears? Are you "paid up" to the present date? The label will tell you. If in arrears, please renew promptly.

WINNIPEG, DECEMBER, 1898.



PRIZE COMPETITIONS.

The publishers of The Nor'-West Farmer have pleasure in announcing that they will award cash prizes as follows:—

1. STOCKMEN.

Two cash prizes of \$10.00 and \$5.00 will be given for the best two letters on any subject of interest to those connected with the care or raising of live stock. Each letter should contain some suggestion which may possibly be of use to other live stock readers of The Nor'-West Farmer. This should be about two columns in length.

2. DAIRYMEN.

Two cash prizes of \$10.00 and \$5.00 will be given for the best two letters on any topic of interest to those connected with dairying or dairy farming. Each letter should contain some suggestion which may possibly be of use to the dairy readers of The Nor'-West Farmer. This should also be about two columns in length.

3. POULTRY-KEEPERS.

Two cash prizes of \$5.00 and \$2.50 will be given for the best two letters on any matter of practical value connected with the keep of poultry. Each letter should contain some suggestion which may possibly be of use to the poultry readers of The Nor'-West Farmer. This should be about a column to two columns in length.

4. GARDENERS.

Two cash prizes of \$5.00 and \$2.50 will be given for the best two letters on any matter of practical value connected with keeping a small garden for profit. This should also be about a column to two columns in length.

5. GENERAL READERS.

Two cash prizes of \$5.00 and \$2.50 will be given to those who send us the best two letters on any topic (not mentioned above) of practical value to farmers and agriculturists in Manitoba or the Northwest. This should be about a column in length.

GENERAL REMARKS.

Write on one side only of each sheet of paper. On the back of the last page the name and address of the sender should be written.

All manuscript sent in to be the property of the publishers, whether awarded a prize or not.

The time for receiving the different letters in all of the competitions will close on December 31st, 1898.

No competitor may send more than one letter on any one subject, but may compete in each of the different subjects.

In case three or more persons send prize-winning letters on any one subject, the prizes will be awarded to the sender whose letter is first opened.

Competitors should address what they send to "The Nor'-West Farmer, Box 1310, Winnipeg, Man.," and they must be paid-up subscribers to The Farmer.

ANNOUNCEMENT.

THE NOR'-WEST FARMER TO BE ISSUED
TWICE A MONTH.

Beginning with the January, 1899, issue, The Nor'-West Farmer will be issued twice a month, instead of monthly, as at present. There are many questions of importance that can be dealt with in a more frequent issue than in a monthly. Timely hints and suggestions along many lines of work can be made that would otherwise be impossible. Our correspondence and veterinary columns will then possess an added value to our readers, and we trust they will make use of them. All the departments of the paper will be improved and the paper made better than ever. A special feature of the semi-monthly will be a reliable review of the markets of the province and continent, specially prepared for our columns by our own editors, and the more frequent issue will make our list of impounded live stock more valuable. We will also be able to offer our advertisers better accommodation than in the past.

The Farmer will be issued promptly on the 5th and 20th of every month. No change will be made in the subscription price, which remains at \$1.00 per year, together with the most beautiful and artistic premium ever offered the reading public of the west. If you are not a subscriber, send in your name at once and secure this valuable premium. If you are a subscriber, secure for us a few new subscriptions in your district, and thus enable us to make the only agricultural paper printed in Western Canada more useful. We want your help and co-operation to double the number of our present readers in 1899.

OUR PREMIUM PICTURE.

Just a word about our new premium picture, entitled "Another Day's Work Done." On page 529 of this issue you will find a half-tone photogravure of this beautiful picture which we are offering as a premium to our subscribers. The original picture was painted specially for The Nor'-West Farmer by one of the best artists in Canada. The oleograph from the original is an artistic work of art in 15 different colors, suitable for framing and

gracing the walls of any room. The size of the picture is 21x28 inches. The half-tone does not in any way convey the wealth of beauty and coloring as seen in the picture. The scene itself, a farm one, is very happily conceived, and when you see it you will agree with us that it is the richest and nicest thing of the season sent out as a premium. The only way to get one of these is by sending \$1.00 for The Nor'-West Farmer from now until January, 1900, and the picture will be sent you free of cost.

Subscribers in arrears are expected to pay all arrearages before taking advantage of this offer. The picture will not be sent to those of our readers who take advantage of our clubbing rates and other premiums.

Remember that The Farmer is becoming every month more attractive in all its departments, and with this fine picture thrown in, is the very cheapest paper, as well as the most useful, that can be offered to the farmers of Western Canada.

IMPORTANT TO REMITTERS OF
MONEY.

The Farmer has received a letter from a subscriber at Douglas post office, bearing date, November 14, containing \$1.75, to which the sender has failed to attach his name. In the letter he says: "I am well pleased with your valuable paper, as it is full of good reading and practical suggestions, and I am sorry I did not take it before." The sender of the letter has not been given credit for the amount sent, and we would thank him to send us his name.

This is only one of several letters received during the past month, in which the remitter has neglected sending his name (all of which, with the exception of the above, have been traced through the kindness of various postmasters), and we would urge our subscribers to be more careful in this regard, as it puts us to a great deal of trouble, and causes delay.

We would also draw the attention of subscribers to the fact that when they change their post office address, we should be notified, giving us the old address as well as the new.

TO OUR SUBSCRIBERS.

The December number closes the 16th volume of The Nor'-West Farmer, and with it the monthly issue will be discontinued. In accordance with the announcement made last month, The Farmer will be issued twice a month in the future, on the 5th and 20th of each month. We believe that this change is a step in the right direction. In proof of this, and that a more frequent issue will be welcomed by our very wide circle of readers, we may say that already letters containing hearty approval of the proposed change have reached us from all quarters. Warm commendations on the continued improvement and helpfulness of The Farmer reach us every week, and it is indeed gratifying to know that our efforts to supply a first-class, up-to-date, reliable farm paper are appreciated.

Since the present publishers took hold of The Nor'-West Farmer, some three years ago, no expense or trouble has been spared in the effort to make the paper one that will be welcomed by every reader. We have been pleased with the success that has attended our efforts—but we are not satisfied. The same progressive policy that has been followed in the past will be continued and every effort made to make The Farmer better than ever and more valuable to every reader. A more frequent issue will afford an opportunity

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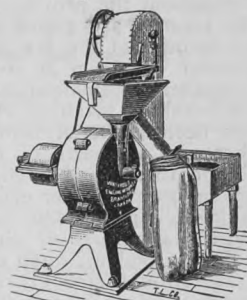
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to offer even more timely hints and suggestions on the many phases of farm life than we have been able to do in the past. Every farmer can help us in this, also to make the paper more useful. If you have a plan of a new house, barn, or stable, containing new and useful features, or if you have a new method of handling and feeding your stock, or a good method of destroying weeds, or cultivating land, or any handy contrivance of saving labor, tell the readers of The Farmer about it, through the correspondence column. It won't injure you and will be a help to others. This is what this column is for, and we want you to make use of it. Also to ask questions about the difficulties you meet with in your work. If we can throw any light on the subject we will, but we do not pretend to know it all, and will always be glad to have the benefit of the experience of others. We want your help and co-operation to make The Farmer for 1899 better than for any previous year.

Before another issue of The Nor'-West Farmer reaches our readers the holiday season will have come and gone. It is a little early for pleasant greetings, but could we reach you at the proper time, we certainly would wish you one and all a Merry Christmas and trust you will enjoy a happy and prosperous New Year.

IS YOUR SUBSCRIPTION PAID FOR 1899?

Quite a number of the annual subscriptions to The Nor'-West Farmer expire with the present issue, which ends the volume of 1898. As there is always a rush of work at the close of the year, subscribers will greatly oblige the publishers if they will send in their renewal subscriptions as early as possible, so that there may be no delay in marking them up on the mailing lists.

The Nor'-West Farmer will in future rigidly adhere to the cash in advance system, as being the most satisfactory to both publishers and subscribers. It is impossible to profitably publish a paper when credit is given for subscriptions, and such a system is often very unsatisfactory to subscribers, papers being sent on after persons wish to cease taking them, the law compelling the subscriber to pay in such cases if they take the paper from their post office.

Subscribers whose terms expire this month are therefore earnestly requested to

remit promptly, so that they may not fail to receive the January 5th issue in due course. The publishers feel confident that their subscribers are satisfied with the paper and assure them that several important improvements will be made during 1899.

Those who do not receive The Nor'-West Farmer regularly should send in a postal card complaint. Mistakes will happen in the best regulated mailing lists, but if the publishers' attention is called to them, they will be promptly rectified.

Look at the date of your subscription label on the front cover. It will tell you how you stand.

STAY WITH THE STOCK.

The other day we heard of a farmer in Manitoba who was feeling very much discouraged with the outlook for cattle. He was feeling so bad that he talked of disposing of his cows, although he had a nice lot of roomy, well-built ones of good breeding—just the cows that would drop first-class stock when mated with a good pure-bred sire. This farmer could not see what was to become of the pure-bred breeders. They were building up and increasing their herds, new breeders were constantly starting up; where were they to sell all their stock? It would all end in a smash some day. The bottom was going to fall out of the cattle business, but he would be out of it before that day happened.

We would like to point out to him and other similarly discouraged farmers that these men must have great faith in the cattle business to invest so much money in it. The fact is that these men are going to stay with the stock, because they feel sure it will be the salvation of this country. We would also like to point out that at the present time the breeders of pure-bred stock can hardly keep up with the demand for young bulls from just such men as he is from all parts of the country. These men want the bulls to use upon their grade cows, so as to be able to raise good beef stock for market. "Oh! but there is nothing in that." Nothing in it? There is at least good paying prices in it. We would like to call attention to the fact that the American farmer who stayed with his stock during the dull times, who kept a good bull and maintained the high quality of his herd, is now having his "innings," and a good one it is. There are ups and downs in all lines

of business. When things are down is the time for wise men to pay the greater attention to their work and get ready so that they may take the full benefit of the better prices that are sure to come. You cannot always be on top. The man who always tries to be on top and changes with every change will never get there. But the man who chooses a good line of work, such as stock raising, and stays with it year after year, will be the man who comes out ahead through a given course of years.

We want to point out that the future of stock raising is bright with promise. This past summer saw the erection in Winnipeg of an abattoir, the full significance of which we believe few farmers have fully realized. We need only look at the large packing houses of Chicago to get some idea of the great things that are to grow out of the beginning made this year. Those who have built this packing house have faith in the stock interests of the west, if the farmers have not. Just as Chicago has become noted for its dressed meats, so will Winnipeg. Just as the farmers of the States near Chicago have become feeders of large bands of live stock, so will the farmers of Manitoba come to be raisers and fatteners of the choicest beef of the country. The opening is equally good for all kinds of animals. When we turn to dairying, the opening there is equally bright.

In conclusion, we would say stay with the stock; don't change because of one or two poor seasons. The Farmer intends to, and would urge every farmer to do the same. Use better sires, and feed and care for them better than has been done in the past.

—Judge Ryan, of Portage la Prairie, has rendered a decision interesting to those living on unpatented lands, who are in arrears for taxes. It is that the goods and chattels are liable to seizure for such arrears, and to be sold by the municipal council.

—It must be pleasing for Canadians to know that the first and third prize-winners in the Intercollegiate Judging Contest at Omaha were ex-students of the Ontario Agricultural College. With Prof. J. A. Craig to lead them they make a trio of which Canada may well be proud. They show that in producing expert judges, as well as pure-bred stock, Canada can take the lead.

THE SHEEP INDUSTRY.

On page 535 of this issue will be found an account of the destruction wolves are causing to sheep, poultry, and even calves, throughout the province. In many places the farmers are giving up keeping sheep on account of the ravages of wolves. The Farmer has been at considerable trouble to gather information on this subject, and the result is given in our columns. This has been gathered from the breeders of sheep in all parts of the province, and should therefore be reliable. The wolves are becoming bolder every day, and scarcely a week passes but we see in the local papers a notice of sheep having been killed by wolves, often close to the house.

We would strongly advise farmers to impress upon their representatives in the legislature, both by letter and personally, the advisability of having some change made in the bounty law. Simply raising the amount of bounty to be paid on each animal is not enough. Provision should be made so that there is money to pay the bounty (no matter how large the number slain) during the whole year, and not have the amount appropriated for that purpose used up in three months' time, as we understand it was in some municipalities lately. This will mean a change in the clauses of the law regarding the amount of money a municipality has to contribute toward the wolf bounty. This, we think, will be the point about which there will be the most discussion. We would like to have short, pithy opinions from our readers on this question.

OUR AGRICULTURAL SOCIETIES.

The annual meetings of the agricultural societies of the province take place on the 12th of December. The Farmer would urge every farmer to attend the meeting of his own society. These societies are doing a good work, and are capable of doing a great deal better work if loyally supported by the people of each district. They have a great educational value, far greater than people generally attribute to them. Under wise direction this feature can be greatly extended. We know of a case this fall where the butter was all scored by an expert and the faults of each lot pointed out. We are satisfied that next year there will be a bigger and better exhibit of butter at this show. If, in making awards in many other lines, the plan of giving reasons for the decision made were followed it would result in much good. The fair day is the great holiday of the season in each district. Young and old alike want to attend it, therefore, as a social event and day of general recreation the local fair has a great value, and is, we believe, worth all that it costs to get it. When we add to this the many lessons that are learned, the impetus given to the breeding and feeding of good stock, and the incentive to excel again another year that is planted in the minds of many, we cannot help coming to the conclusion that the fairs are a good thing and worthy the hearty support of every farmer.

The trouble seems to be that a large majority of the farmers, and too frequently the best ones, do not take any interest in the local fair or any of its meetings, but rather stand aloof instead of giving hearty support. We sometimes hear farmers say that the management of the society is in the hands of a clique, who run it to suit themselves and arrange the prizes and select the judges so that they can get as much out of the fair as possible. This is not a fair charge. If you are not satisfied with the management, attend the annual meeting yourself, get your neighbors to attend, and elect men that will manage it properly. Those who

attend the annual meeting naturally elect officers from among those present. It can hardly be expected that they would elect men to office that do not show interest enough in the society to attend the annual meeting. The remedy is to elect good men to office, men who have the interest of the society at heart and are willing to push it along. Elect no man to office simply out of honor or compliment. The first qualification for an officer should be that he is a worker, and the secretary—well, he must be a hustler. Much of the success of the society depends on him—see to it that you have the best man available.

There is one matter to which we would like to draw the attention of members, and which can be discussed at the annual meeting to better advantage than anywhere else. This matter is the advisability of the society competing for the inter-provincial prize offered at the Winnipeg Industrial Exhibition for the best collection of grain and grass seed shown by any agricultural society in Manitoba or the Territories. This is a valuable prize, and we think worthy the effort of any society to obtain. A little effort on the part of the directors, or possibly a sub-committee, might easily win this prize. Now is the time to begin work, and not a few weeks before the exhibition.

The Farmer would urge every farmer to become a member of the agricultural society as early as possible, and not leave it until the last minute. Do it now, so that the new officers may know what they have to count on and also that they may be able to draw as large a grant as possible.

In the report of the Department of Agriculture and Immigration for the year 1897, we find that although all grants must have been paid before the day of the annual meeting, some five societies apparently had not paid any of the prizes awarded for 1897, and yet showed sufficient cash on hand to have paid every cent of prizes awarded. This should not be so, accounts should all be paid, and a clean sheet presented for the new directors to start with. It would be well for members of all societies to see that there is nothing in arrears.

BULLS FOR THE TERRITORIES

Mr. Ross, the Minister of Agriculture for the Territories, proposes to expend the legislative grant appropriated last session for the encouragement of improved breeding in the following way: A breeder wishing to import one or more bulls from the east must, when making application for government assistance, deposit \$5 for each animal, for which sum the government will arrange to deliver them at the nearest station to the applicant, always provided that there are to be enough bulls taken to some central point of distribution, say Lethbridge or Edmonton, to make up a car load. The government will, whenever a car lot is so arranged for, undertake to pay the railroad charges necessary for the transport and distribution, the excess over the \$5.00 originally paid by the rancher, to be made good out of the legislative appropriation. The Pure-Bred Cattle Breeders' Association of Manitoba has secured from Mr. Ross the same terms for car lots of Manitoba-bred bulls. This year Manitoba will have only one or two cars to sell, but will do better by and by.

—A settler returning from the Swan River district reports having seen three buffalo pursued by a large dog and in very poor flesh. It is greatly to be desired that these rare specimens should be protected, but their chances are rather poor.

AN OLD FRAUD.

Turning over the other day the columns of a widely circulated contemporary, we came on an article headed "An Old Fraud," in which the writer criticises very sharply a report of the doings of the now well-known seed breeders, the Garton Bros., of Newton, Lancashire. That report states that by selection and cross fertilization these men have been able to produce varieties of wheat the average weight of the grain of which is 60 per cent. greater than the average weight of grains of the wheat in ordinary cultivation. Another statement of this English reporter is that by the same methods the Gartons already have varieties of wheat and oats which promise to yield 30 or 40 per cent. more per acre than ordinary varieties and so increase the national production by that amount. The authority for these brilliant anticipations is not alone that of a casual visitor perhaps from a city newspaper office. Two of the ablest scientific experts in Britain, Drs. Goodfellow and Jago, strongly endorse the work done by the Gartons.

These claims, the enlightened eastern oracle from which we quote, holds up to the ridicule of his readers, because the improved English seed oats promise to yield 30 to 40 per cent. extra, which in the judgment of our critic is a preposterous and absurd claim to be made on the strength of evidence so crude and imperfect. Another point the Montreal critic makes is that these alleged improved English wheats are said to be 60 per cent. heavier than ordinary wheat, "thus making a bushel of wheat weigh 96 lbs., a wholly impossible thing we are sure." This last is the richest specimen of slashing criticism we have read for many a day. The Englishman says that 100 grains of the improved wheat weigh 60 per cent. heavier than the ordinary, but he neither says nor means to say that 100 of the improved grains are no bigger than the other 100 with which he contrasts them. The improved grains from the Garton farms may, and probably will, have less specific gravity than the smaller berries produced by ordinary seed and cultivation. The insight of the Montreal critic and not the statements of the English reporter is where we would put the exclamation points.

In the same column in which the humbugging and preposterous assumptions of the English reporters and scientists are held up to ridicule is a special demonstration by a great western authority that in this country in the same year, on the same farm, and under the same conditions, there was a difference in the product from two varieties of oats of 47 bushels per acre, the highest being 89 bushels, 14 lbs., and the lowest 42 bushels, 12 lbs., a difference, as we reckon it, of 111 per cent. "From these experiments," say the Canadian reporter, "we gather that there is a possibility of a difference in the farmer's crop of oats of from 40 to 50 bushels per acre, depending entirely on the selection of the seed." What The Nor'-West Farmer would like very much to understand is, why it is such rank fraud and absurdity in an English reporter to prophesy 30 or 40 per cent. increase as the result of improved seed there, when the highest authority in Canada claims over 100 per cent. increase from doing the very same thing here?

—The other day a farmer riding into Birtle had his leg broken by his horse slipping and falling on the frozen road. Similar accidents have repeatedly happened and are generally due to want of shoeing. The front feet anyway should be shod and kept in proper condition all winter.

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EDITORIAL NOTES.

—Final arrangements are not yet completed for the annual meetings of the Live Stock Breeders' and Dairy Associations, but it is more than probable they will be arranged for the same date as the Winnipeg bonspiel, which commences February 6, 1899.

The Nor'-West Farmer has received an invitation to be present at the second annual convention of the National Live Stock Association, which will be held in Denver, Col., on January 24—27, 1899. A good programme is being arranged for. One of the subjects coming up for discussion is the proposition to have a law passed by Congress to prohibit the importation of breeding stock physically unsound.

—The inflated prices that have ruled the last year or more for young cattle, particularly in the United States, are now admitted by those in the secret to have been a blunder. Bankers in the district where the boom was strongest have been loaning money far too freely on "cattle paper," and the latest development of the situation is the absconding of G. C. Gillett, one of the biggest speculators in range cattle. His holdings amounted up to about a million dollars, and his downfall is likely to be the signal for a collapse of the boom with severe loss to a good few of the holders.

—The Department of Agriculture has issued the report of Prof. McEachran, chief inspector of stock for Canada. He visited and made investigations into the cattle industry in Great Britain, France, Germany and Denmark during the past summer, and in his report gives many valuable suggestions. He also saw the British Minister of Agriculture about having the embargo on Canadian cattle lifted, but met with very little encouragement that the embargo would be removed. The fact of the matter is that this embargo will never be removed, and we may as well recognize the fact at once and plan accordingly.

—It is curious to read some of the comments made by outside journals on the reported very serious damage done to the crops of Manitoba. It is estimated that out of 25,000,000 bushels of wheat not more than 8,000,000 will be saved in marketable condition, and not only the farmers but the railroads that had made extensive preparations for handling their crop will be heavy sufferers. Here is one of them :—

"Altogether the situation is described as exceedingly gloomy, and in some districts it is thought likely that the farmers may have to ask help from the government, which will be very loth to have to spend money in mere charity."

The season has no doubt been very laborious and harrassing, and the loss by wet grain considerable, but most of us can stand it all, and the effect of those rains on our soil will certainly be of the most beneficial character. Charity to the ruined farmers of Manitoba sounds like a good joke.

—The Neepawa Press had the other day a review by a local correspondent of the road improvements made in Lansdowne municipality during the past season. Assuming the accuracy of the main points in that statement, this district is to be congratulated on the prudence and energy shown. The roads in question are not mere grades, but involve good engineering and bridge building at several points. In every case the government engineer, by his experience and professional training, should be called in at the inception of all such undertakings, and the work carried through under his inspection, if difficult, if not, by a wisely selected and responsible local councillor. The writer further outlines the work proposed for next season, so that every detail can be freely discussed before a single day's work is done. With men of the right stamp, capable and public spirited, a lot of good local improvements can be done without outlay for expensive officials, and yet be quite up to the mark in quality. Some awfully mean men have done their best to bring statute labor into disgrace. Short days and half-done work have been too prominent features in rural road-making, and it is refreshing to find a record of doings such as those at Lansdowne that will meet general appreciation because of their quality and economy.

Topics for Farmers' Institute Meetings.

At the Farmers' Institute banquet at Birtle, on the 9th of November, Hugh McKellar, chief clerk of the Department of Agriculture, gave a most interesting and instructive address on the working and value of the farmers' institute. He spoke of the success of the institutes in Ontario, where over 125,000 farmers and their wives attended the institute meetings last winter. He called the institute the farmer's school and spoke of the need of farmers in a new country like this meeting together and giving their experience on matters pertaining to the farm. He suggested the following topics as being suitable for institute meetings :—

1. Quality of grain for seed purposes. This will include all kinds of grain, etc., and on different kinds of soil and different methods of preparation.
2. Fall and spring plowing and summer fallowing. This is a wide field, and might take in stubble burning.
3. Cattle feeding. Experience of farmers in 3-year-olds, 2-year-olds, yearlings and baby beef.
4. Stacking.
5. The farmer's garden. Size, plan, what to grow and how to grow it.
6. Dairy work. The cow, her feed, her stables, and the proper management. Milk and its handling.
7. Weeds. How to destroy them. The value of the harrow and the weeder in their destruction.
8. Poultry. Breeds, management, feed, buildings, etc.
9. Swine. Breeds, the bacon pig, feeds, management, buildings, etc.
10. Grasses. The best for Manitoba, preparation of land, seeding (time and

quantity of seed), cutting and making hay, pasture.

11. A social evening. A banquet or social gathering of some kind.

12. Ladies' meeting. Bread, buns, preserves, cooking, housekeeping, pickles, etc.

The subjects and sub-divisions are only suggestive and can be enlarged or curtailed, as desired. Any one of these subjects, properly opened up, as the farmers are capable of doing, will furnish material for a rousing good meeting. One subject well threshed out in all its bearings will be much better than a variety of subjects. There is material enough in this list for two years' meetings of an institute holding two meetings a month for three months.

In conclusion, he urged upon the members that all political questions should be avoided, also all subjects that lead to wrangling. Members should respect the opinions of others and not be too positive and assertive in advancing their own. Be ready to give and take a little. Avoid jealousies and selfishness. Above all, have something to say that will help your neighbor—lend a helping hand, and give an encouraging word that will make his life better.

Chas. Knox, inspector of live stock at Winnipeg for the N.W.T. government, informs The Farmer that 14,531 head of cattle have been shipped from the Territories to the Old Country during the last two months.

The Carberry News says farmers in the Wellwood district are going out of stall feeding. It also notes that in England a Massey-Harris binder was seen running last harvest with three men to handle it, three horses with a driver on the seat and a man to ride each of the outside horses.

The 8th annual meeting of the Canadian Hereford Association was held at Brantford during the fat stock show. During the year 318 registrations were made, and 17 new members were added to the roll. The past year was the best in the history of the association. Sales have been good and prices very satisfactory. The finances were in a prosperous condition, with a balance on hand of \$334.22. The following are the officers for the new year : President, H. D. Smith, Compton, Que.; vice-president for Ontario, W. J. McDonald, Toronto; vice-president for Quebec, R. H. Pope, M.P., Cookshire, Quebec.; secretary-treasurer, H. Wade, Toronto, Ont.

Receipts of range cattle at Chicago for season of 1898 up to date show a decrease of 38,500 head as compared with last year. In point of flesh this year's receipts show a great improvement over those of a year ago. This is accounted for by the fact that the cattle entered the winter in very good condition, and owing to the comparatively mild weather, came out in the spring in the best condition in years. A larger percentage of the stock was sold for beef this year, while last year the largest portion was sold for feeders, not being in good enough condition for beef. The number of cattle that will be fed in Nebraska this winter will not be over 50 per cent. of last year's number. This is partially owing to the poor corn crop.

Live Stock Impounded.

The Nor'-West Farmer publishes every issue a list of animals impounded in Manitoba and the Territories. We would request poundkeepers to send in notices as early as possible, for which no charge is made. Animals lost or found will be inserted free of charge, to subscribers only, if description does not exceed three lines. If over three lines, 15 cents per line will be charged. Following is the list since last issue:—

Impounded.

Alameda, Assa.—One colt, color brown, 2 years old, two white feet, star on face; one colt, color bay, white face. Chas. Reed, 28, 4, 2, W. 2.

Argyle, Man.—Seven calves; one steer, color grey, white star on face; one steer, color roan, white face; one steer, color red, star on face, white around flank and belly; one small heifer, color roan; two heifers, color dark red, and one heifer, color light red; also one cow, color light red, big white spot on face, white stripe along back, white on fore legs, flank and belly, about 13 years' old, short tail, and bell on. Jos. Emms, 12, 14, 1 W.

Baldur, Man.—One horse pony, aged, color bay with white face and white hind feet, no visible brands; one horse pony, color roan with white face, branded I-Y on left hip. H. Goodman.

Burnbank, Man.—One muley cow, color red, aged, piece of rope round neck. Wm. Lindsay, 22, 13, 27.

Carberry, Man.—One horse, color cream, three years old, four feet white and white face, about 14 hands high, weighs about 800 lbs. Thomas Goggin, Ward 1.

Carman, Man.—One horse, color bay, with white feet and a white star on face, about 12 year old. C. F. Jenkins, 24, 6, 5.

Clandeboyne, Man.—One steer, color red and white, 1 year old. Wm. McRae.

Elie, Man.—One ox, color white, tip of right ear cut, 2 years old; one ox, color red, branded L on right hip. E. Dufresne.

Erinvine, Man.—One gelding, color bay, two years old, white star on face and four white feet; also two ponies, mares, one black with white stripe down face, three white feet, the other sorrel, white stripe down face and two white hind feet. Ed. Lewis.

Fernton, Man.—One heifer, color red, about 2 years old, point of both ears frozen. J. Fortier.

Glenella, Man.—One large cow, color light roan, aged, callous udder; one polled ox, color red, with white face and belly; one heifer, color white, about one year old; one cow, color red, little white on belly, one large teat, one horn turned down, with red and white heifer calf at foot; one cow, color strawberry roan, about 6 years old, red and white bull calf at foot; one steer, color red and white (mostly white), about 2½ years old; one heifer, color red, white on belly, about 3 years old. Thomas J. Lokier, 4, 18, 13 W.

Grenfell, Assa.—One cow, 8 years old, color light roan, not milking, one teat missing on off side, short rope round horns. Wm. Welch, 31, 16, 7, W. 2.

Headingley, Man.—One cow, color roan, with piece of one ear and udder out of the other, about 5 years old; two steer calves, about 1 year old, one red and white and the other a red roan, no other marks visible. J. M. Tait.

Ile des Chenes, Man.—One heifer, color black and white, rope on neck, both ears cut, about 18 months' old, no horns; two young lambs, top of both ears cut. N. A. Dumaine.

Indian Head, Assa.—One horse, color black, C bar indistinct on left shoulder, star on forehead; one horse, color black, stripe on forehead, hind feet white, little white on high side. C bar indistinct on left shoulder.

Kildonan, Man.—One cow, color black, white spotted, piece cut out under point of right ear, about 5 years old; one yearling heifer, color red, two holes and slit in right ear; one yearling steer, color roan, no marks. Wm. Sutherland.

Lake Francis, Man.—One yearling heifer, color red, split ear. E. J. Martin, 12, 15, 4 W.

Lenore, Man.—One broncho, color bay, about 15 hands high, with halter on, about 6 years old; also one broncho, color brown, 1 year old, entire. S. J. Wilson, 2, 12, 25 W.

Lillyfield, Man.—One muley heifer, color black, 1 year old; one heifer, color red and white, 2 years old, hole in left ear. Thos. Riggall.

Lillyfield, Man.—One heifer, color red and white, 1 year old; one heifer, color red and white, slit in left ear, 1 year old; one mare color chestnut, with white hind feet and white face, 3 years old; one mare, color chestnut, right hind foot white, 3 years old; one horse, color dark gray, right hind foot white, 3 years old; one mare, color bay, 2 years old; one mare, color bay, left hind foot white and white face,

2 years old; one horse, color bay, 8 years old. Thos. Riggall, 28, 12, 2 E.

Lorette, Man.—One heifer, color brown, branded A V on left thigh, 18 months old; one heifer, color brown, 18 months old, no visible mark; one heifer, color white and red, 18 months old, no visible mark. C. McDougall.

Macdonald, Man.—One muley heifer, color roan, 2 years old; also one steer, color red and white, 1 year old. John Ferris, 6, 13, 7 W.

Middlechurch, Man.—One yearling steer, color red and white, no mark or brand; one yearling heifer, with hole in left ear and two pieces cut from lower part of the right ear. Jas. Taylor.

Millbrook, Man.—One yearling heifer, color red, white spot on forehead, grey tail and white under belly. F. Lawrie.

Morris, Man.—One horse, color sorrel, about 10 years old, branded T on left shoulder, white stripe on face, and white hind foot. John Earl, Lot No. 399, St. Agathe.

Oswald, Man.—One yearling heifer, color red, white under belly, white star on forehead, white on top of hips and end of tail white. C. de Laroque, 12, 15, 2 W.

Oswald, Man.—One heifer, color red and white, 2 years old, with two holes punched in right ear; one heifer, yearling, white face, lined back, white belly and feet, body red; one spring calf heifer, white and red spots. Jas. Proctor, 32, 14, 1 W.

Flympton, Man.—One steer, color white, 3 years old, branded C B on left horn; also two yearling steers, one black and white and one brindle. D. Ferguson.

Poplar Point, Man.—One yearling heifer, color roan, white back and four white legs. C. Newman.

Poplar Point, Man.—One dehorned bull, color brindle, about 2 years old, with white star on forehead, and white under belly. C. F. Newman.

Poplar Point, Man.—One cow, color white, about 3 years old, accompanied by a sucking steer calf, color white, with red on head; one yearling steer, color red and white, spotted, split in both ears. C. F. Newman.

Portage la Prairie, Man.—One steer calf, color light roan. R. Richardson, Lot 127.

Reston, Man.—One pony mare, color bay, with white stripe on face and white hind foot. Alex. Wilson, 18, 8, 27.

Richot, Man.—One heifer, color red and white, hind feet white, and white spot on forehead. A. Brabant, Lot 137.

Rosser, Man.—One mare, color dapple grey, 4 years old, with halter and blanket; one mare, color black, white star on forehead, aged, with halter and blanket, and shod all round. J. Haddow, 26, 12, 1 W.

Rosser, Man.—One filly colt, color black, left hind foot white and white face; one gelding, color bay, three white feet; one steer, color red, a piece out of each ear, blue paint across hip. R. G. Minaker, 9, 12, 1 E.

Rosser, Man.—One heifer, color roan, mixed with black, about 3 years old, no brand visible; one mare colt, color bay, white on forehead, left hind foot white, branded M P on left shoulder, 1½ years old. W. Atkinson, 28, 11, 2 E.

Rosser, Man.—One heifer, color red, 2 years old; one heifer, color dark roan, 1 year old; one heifer, color red, white on forehead and white on belly, 1 year old; one steer, color light roan, 1 year old; two calves, one red and one brindle. Thos. Riggall.

Rosser, Man.—One horse pony, color red roan, marked B on right hip, aged; one mare pony, color dark brown, two hind and one front leg white, white spot on nose and star on forehead; one pony mare, color light bay, four white legs and white face, 1 year old. J. Haddow, 26, 12, 1 W.

Rosser, Man.—One cow, color red and white, white face, left horn broken, two pieces out of right ear, about 8 years old; one cow, color light red, small white spot on forehead, white on belly, horns turning up, 7 years old; one heifer, color black, white belly, white hind legs, piece out of left ear, about 2 years old. Wm. Atkinson, 28, 11, 2 E.

Russell, Man.—One yearling heifer, color red and white; one heifer, color red, white tip to tail, both horns broken, white under fore legs, 2 years old. Fred. Vinnell, 20, 22, 27.

St. Agathe, Man.—One filly, color bay, two hind feet white, right front foot white, white stripe on face, about 2 years old; one pony filly, color bay, left front foot and hind feet white, white stripe on face, about 2 years old. W. Vermette, Lot 284.

St. Andrew's (municipality), Man.—One muley heifer, color dark red, 3 years old, white up to knees, tail half white, white belly and forehead, white spot on rump, no marks; one heifer, color dark red, 2 years old, white belly and white between horns and over rump, white spot on thigh, no marks; one muley yearling heifer, color dark brindle, white spot on forehead, white belly, branded A on left hip; one yearling heifer, color red, white spots on belly, tail half white, branded A S on left hip. W. C. Sutherland, Ward 1.

Ste. Anne des Chenes, Man.—One cow, color white roan, with red neck, right ear split, accompanied by a red and white bull calf. F. Nolin.

St. Boniface, Man.—Three yearling heifers, color red and white, both ears split; one yearling heifer, color red and white, end of right ear cut square and piece cut off from underneath left ear; one yearling heifer, color black, with little white, no visible mark; three yearling heifers, color red, no visible marks; one heifer, about three years old, color red, no visible marks. Lig. Gagne.

St. Charles, Man.—One cow, color white, with red ears, branded B on left hip, about 7 years old; one cow, color red and white, 8 years old, horns sawn off, indistinct brand on right horn. D. Isbister, Ward 4.

St. Charles, Man.—One heifer, color black, 1½ years old, right ear cut; one mare, color red, bell on neck; one mare, color red, white on forehead; two mares, color brown; one mare, color black; one colt, color dark brown, two hind feet white. A. Hogue.

St. Charles, Man.—One mare, color dark brown, branded on left shoulder (indistinct); one horse, color chestnut, branded on left shoulder (indistinct), about 3 years old; one horse, color bay, no brand, about 3 years old; one horse, color black, white legs and face, no brand. Antoine Hogue.

St. Clements (municipality), Man.—One heifer, color red, 2½ years old, white star on forehead, white on belly and flank, white spot on top of rump, no marks. P. Spence, Ward 3.

St. Francois Xavier, Man.—One heifer, color white, 1 year old, no marks. P. Lafrance.

St. Francois Xavier, Man.—One yearling steer, spotted red and white, no marks. N. Deslaurier.

St. Francois Xavier, Man.—One muley heifer, color black, no visible mark or brand. Paul Lafrance.

St. Francois Xavier, Man.—One spring heifer, color red, little white spot on the left side, left ear split. P. Lafrance.

St. Francois Xavier, Man.—One yearling heifer, color red, white spot on forehead, white on belly, end of tail white, no marks; one yearling heifer, color roan, red head, white spot on forehead, end of tail red, no marks. N. Deslaurier.

St. Francois Xavier, Man.—One mare, color bay, white spot on the right side of the jaw, no visible brand; one mare, color black, about 7 years old, no visible brand; one colt, color black, about 18 months old, no visible brand. W. Bovin.

St. James, Man.—One dehorned cow, color red, white under belly and two hind feet white, left front foot white; one steer, color red, white under belly, 1 year old, two hind feet and part of head white also half of tale white, tag in the right ear with the name of J. Sanderson, Winnipeg. Henry Elise.

St. Laurent, Man.—One cow, color brindle, white spots, about 16 years old, no marks. Chas. Lambert.

St. Vital, Man.—One heifer, color red and white, about 2 years old; one heifer, color red, white belly; one ox, color red and white, 1½ years old. D. Lazence.

Stonewall, Man.—One pony mare, color bay, no visible marks. Alex. Matheson, 12, 13, 1 E.

Stonewall, Man.—One filly, color dark bay, 3 or 4 years old, one white hind foot, white spot on forehead. Ed. Good, 18, 13, 2 E.

Stonewall, Man.—One horse, color bright bay, about 4 years old, black mane and tail, white on forehead and on tip of nose, white hind feet. Ed. Good, 18, 13, 2 E.

Stonewall, Man.—One heifer, color red, 2 years old, hole in ear; one cow and calf, color red, about 5 years old; one steer, color red and white, hole in ears, about 1½ years old; one steer, color red, marked on ears, about 2 years old; two heifers, color red, marked on ears, about 1½ years old; one heifer, color red and white, marked on ears, 2 years old; one muley heifer, color black, marked on ears, about 1½ years old. Alex. Matheson.

Stony Mountain, Man.—One ox, color red, branded C P on right hip; also one heifer, color red, with star on head, white on belly and part of tail white. John McQuat, 11, 13, 2 E.

Strathewen, Man.—One heifer, color red, two years old. John A. Rowe, 3, 14, 2 E.

Tache (municipality), Man.—One cow, color light red, 4 years old. N. Truin, Ward 6.

Wavy Bank, Man.—One yearling steer, color red and white, piece cut from under side of ears; one yearling heifer, color red and white. C. Herbert, 27, 14, 2 E.

Whitewood, Assa.—One horse, color light grey, about 5 years old, driver, dragging about 15 feet of rope. J. W. Taylor.

Winnipeg, Man.—One steer, color red, bottom half of tail white, about 18 months old, no visible brand. F. Collins.

Woodlands, Man.—One heifer, color red, with white under belly, about 2 years old, no brand. Wm. Marchant, 22, 14, 2 W.

Woodlands, Man.—One calf, color white, with hole in right ear. J. W. Balfour, 33, 13, 2W.

Woodlands, Man.—One yearling steer, color dark red, white on forehead and end of tail white; one yearling steer, color light red, white under belly; one steer, color dark red, 2 years old, piece broken off right horn, piece cut out of left ear, branded 8 on left hip. A. McMillan, 23, 13, 3 W.

Estray.

Coteau, Assa.—One pinto pony mare, aged, G, with dot in centre, on right shoulder. George Woolles, 28, 7, 6, W. 2.

Dennington, Assa.—Seven spring calves, spotted red and white. Jas. Wiggins, 20, 7, 1, W. 2.

Fort Qu'Appelle, Assa.—One yearling steer, color red. John Scott, 16, 22, 14, W. 2.

Hollbroke, Alta.—One heifer, color roan, 3 years old, 6 on right side, both horns broken off. J. E. Aylwin.

Innisfail, Alta.—One yearling steer, color black; one yearling heifer, color red, left ear split. W. G. McArthur, 14, 35, 28, W. 4.

Kaposvar, Assa.—One bull calf, color dark red, about six months old, with white spots, two white spots on forehead, one star-shaped, other heart-shaped. A. Kristoff, 13, 19, 1, W. 2.

Leduc, Alta.—One mare, 8 years old, color bay, about 850 lbs., branded indistinctly on left shoulder, colt at foot, foaled in July last. F. Bresard, 6, 50, 24, W. 4.

Leduc, Alta.—One gelding, aged, color grey, half circle on right shoulder, about 1,000 lbs.; one gelding, aged, color bay, X on right hip, 2 shoes on. C. S. Larose, 12, 49, 29, W. 4.

Millet, Alta.—One horse, color bay, 6 or 7 years old, right hind and right fore foot white, white stripes down face, S on left jaw, irregular brand on left shoulder, 77 on right thigh, about 900 lbs. B. A. Van Muter.

Morley Assa.—One horse, color chestnut, roach mane, branded W G on left hip. W. Graham, south of Ghost River.

Neudorf, Assa.—One mare, color sorrel, about 6 years old, white face, about 15 hands, hind feet white. J. Baber, 30, 19, 2, W. 2.

Olds, Alta.—One yearling heifer, color black; one yearling heifer, color red and white; one yearling steer, color red; one steer, color red, 2 years old; all four have combination A L on left hip. Jas. Edmonston, 32, 30, 27, W. 5.

Penhold, Alta.—One yearling steer, color light red, ends of horns cut off; one steer, color dark red, 2 years old, white spots on left fore foot, under body and right hind leg, right horn off, short tail. J. E. Doan, 14, 36, 23, W. 4.

Qu'Appelle Station, Assa.—One mare, color bay, 3 years old, black points, star on forehead, about 14 hands. Ed. Whalen, 36, 19, 16, W. 2.

Spruce Grove, Alta.—16 swine, 14 all black, 2 white and black. D. Brox.

St. Andrew's, Assa.—One brown mare, 9 years old, about 15 hands high, has an old sore on right shoulder; one colt, color brown, rising 2, sold color; one pony, color roan, with short cut tail. A. McDonald, 24, 14, 1, W. 2.

Wapella, Assa.—Two heifer calves, 8 mos. old, one dark red, the other red and brindle, mixed with a little white. T. Jones, 24, 18, 1, W. 2.

Lost.

Belmont, Man.—One cow, color red and white. Alex. Lewis.

Carberry, Man.—Sow and six pigs, five months old, all white. H. W. White.

Minnedosa, Man.—One cow, color red, white markings, branded W. H. Young, last seen near Neepawa. W. H. Young.

Pigeon Lake, Man.—One yearling gelding, one white hind foot, small, white star on forehead. W. J. Paramor.

Rossendale, Man.—One yearling colt, color black, large white face, both left feet white. Allen Rittenhouse, 21, 9, 9.

Westbourne, Man.—One heifer, color light roan, 2 years old, red neck, heavy with calf when last seen, marked on ear. W. A. McLean.

Brantford Fat Stock Show.

The last week of November was a big one for Brantford, besides the Provincial Fat Stock Show, which is a big enough drawing card in itself, the meetings of the various live stock associations made the week a most important one. The fat stock show was better than any of its predecessors, both in point of attendance and in the number and quality of the stock. Last year the total number of entries was 733. This year there were 754 paid entries, without counting the entries for specials, which were free, and would put the total number of entries considerably above 800. Owing to the annual meeting of some of the American Sheep Breeders' Associations taking place in Brantford the same time as the show, there were a large number of prominent American stockmen present. Prof. Curtiss, the well-known Director of the Iowa Experimental Station, is reported to have said; "Your Provincial Fat Stock Show surpasses anything of its kind on the other side."

In pure-bred Shorthorns, J. Oke & Sons, Alvinson, well-known for their ripe, well-fleshed cattle at fat stock shows, won the most awards. J. Fried & Sons, Roseville, another very successful feeder, secured a number of good awards. Only one pure-bred Hereford competed. The entries of Polled Angus, Galloways and Devons were good, but it was the class for grades and crosses that brought out the best of the show. The number of entries was large and the competition keen indeed. The championship prize of the cattle classes went to a grade Shorthorn steer fitted by John Campbell, the well-known Shropshire breeder, of Woodville. His steer, Perfection, weighed 1,825 lbs. at two years, nine months old.

The classes for pure-bred sheep were all well-filled, there being frequently a dozen animals in the ring. Lincolns, Oxford Downs, Shropshires and Southdowns made the largest showings of the lots of pure bred stock. The grade classes were unusually well filled. The championship prize for the best fitted sheep on the ground went to a Southdown shown by John Jackson & Sons, Abingdon, Ont. If we remember rightly, a representative of this great muton breed won the championship last year. Gibson & Walker showed some of their Lincoln sheep that were prize winners at Omaha. A. Elliot, Pond Mills, was successful with Oxford ewe lambs, and wethers.

In the classes for swine was where a large amount of the interest in the show centred. Fully half the total number of animals entered at the show were found in the pens of fat swine. Geo. Green, Fairview, made the best exhibit of Berkshire swine, and succeeded in carrying off the championship prize for best animal in the swine classes with one of his Berkshires. Yorkshires were a large class, so also were the Chester Whites, in which W. Butler & Sons, Dereham Centre, won a good number of prizes. This firm were also very successful in both the Tamworth and Duroc Jersey classes, which were large ones, and in which it would be no disgrace to have to take even third place. In Pol-

and Chinas and Duroc Jerseys, W. M. Smith, Fairfield Plains, was awarded a number of good prizes. Classes for grades and crosses were well filled. The largest hog in the show was owned by Robert Agnew, Acton. The greatest interest in the swine exhibits centred in the entries in the class for export bacon. There was a section for each breed, and it required four hogs to make an exhibit. In the section for grade or cross-bred hogs for bacon purposes there was an entry of 15 exhibits of four hogs each, or 60 in all. Out of a string of 28 entries of four hogs each for the sweepstakes prize for the best four bacon hogs for export purposes, pure-bred or grades, Joseph Brethour, Burford, won 1st place with his pure-bred Yorkshires.

1898 will go on record as witnessing the beginning of a block test at the show. It was very successful. The prize was for the two best export bacon hogs, dressed, to be brought to the show alive and killed the second day of the exhibition. There were 19 entries. First prize was won by two Tamworth hogs shown by H. George & Son, Crampton, Ont., and they have thus the honor of winning the first block test in Canada.

In the dairy test there were representatives of the Shorthorns, Ayrshires, Jerseys, Guernseys, Holsteins, and grades, over 40 cows in all. Among them is Calamity Jane, the winner of the test for the past three years. The results of the awards in this had not reached us when we went to press.

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The tuberculosis scare seems to have reached Argentina. It is stated that out of the 200 Shorthorns landed at Buenos Ayres since May last 35 per cent. have been proved tuberculous when tested with tuberculin. The question is raised: How can there be so much tuberculosis in cattle from Great Britain which have been tested with tuberculin before shipment? The voyage to Argentina is forty days, and that sound cattle when shipped should show symptoms of the disease after that time is somewhat of a mystery. It is hinted that some British breeders have their cattle tested privately a day or two before the shipment, and consequently the public test does not show any reaction.

Market Review.

By our own Editors.

Winnipeg, Dec. 7, 1898.

Wheat.

This week navigation has closed at Fort William, and all business now done must be on the basis of all-rail rates. Last week the Fort William market opened at 70c., but fell back as much as 4 cents, closing at 68½c. for No. 1 hard. The business done for some days has been slow and stagnant, and both here and at outside markets the most noticeable feature is the quietness of the trade in spite of the shortness of the visible supply. At the principal British ports, on Nov. 30th, the reported stock of wheat was less than a million and a half bushels. Of course, there may be good stocks of flour on hand and in transit, yet this meagre stock of milling wheat seems to have had no influence in quickening prices there to any appreciable extent.

Prices at our local markets have ruled low for the last ten days, and much unfavorable comment on the assumed combine to keep down prices has been the result. Such criticism is to see that while there might be sound business in selling wheat out of the Fort William elevators at 70c., yet purchases here had all to be made on the certainty that they must be on the basis of all-rail rates.

There is one point of importance in connection with shipments from Fort William that may be noted here. Owing to the elevators at Fort William being placed on a stagnant river navigation on this side of the line is liable to close some days earlier than at Duluth. But, even with this advantage in its favor, Duluth quotations are only a cent above those of Fort William. Allowing for difference in contract grades, this means only two cents in favor of Duluth.

Looking to the stagnation in the market now prevailing and the low prices quoted, the question arises, What should the producer do now with his wheat? The men whose judgment is most disinterested agree in saying, "If you are not pressed for the money, hold on to it." Even if no war cloud is to burst, and so produce a sudden expansion of values in all food products, the state of the world's visible supply warrants the expectation of better rates as the winter goes on. The Minneapolis Journal, in a recent review of the situation in the northwest, points out that with the quantity required to keep the home mills running till the end of next July, the quantity already exported, the seed wanted for next spring, and the supply of the mills further south, which always want some hard northwestern wheat, the total of exportable wheat is of very modest dimensions. In fact, the policy of the trade south of the line appears to have been to rush out all that could be got away to the foreign markets before navigation should close, depending on later deliveries from the country to fill the empty elevators round Minneapolis. Since this review was written nothing has transpired to lessen the chances of the men who can afford to hold their wheat into the beginning of the new year. Just now markets are only drifting and buyers only operate on a decided certainty that whatever may happen they are quite safe to buy at present prices.

One disturbing factor that helps to cause a little suspense in the English market is the Times' report of a heavy crop in the Argentine, but that again is offset by a report that damage by weather will reduce that.

In conversation with Mr. McKellar we learn that the crop reports from all the districts, except the Eastern, show that the loss to the wheat crop is not as great as was expected. In the Eastern district the loss has been quite heavy.

At Winnipeg the range of prices is from 54c., the highest for good wheat, which is rare, down to 30c. for damaged sorts, which are very abundant.

The quotations for C. P. R. stations on Dec. 6 are as follows:

Main Line—Portage la Prairie 52c., Carberry 50c., Brandon 50c., Virden 49c., Moosemin 49c., Whitewood 50c., Qu'Appelle 48c., Regina 48c., and Moose Jaw, 48c.

Prince Albert Branch—Lumsden 48c., Souris Branch—Hartney 50c., Souris 50c., Carnduff 48c., Carleton Place 48c.

Southwestern Branch—Carman 50c., Treherne 50c., Glenboro 50c., Pinstone 50c.

Pembina Branch—Morris 48c., Gretna 48c., Morden 48c., Pilot Mound 52c., Killarney 49c., Ninga 49c., Boisvein 56c.

Stonewall—57c. to 48c., Emerson Branch—48c., Manitoba and Northwestern—Neepawa 48c., Rapid City 48c., Binscath 52c., Franklin 52c., Minnedosa 47c., Birtle 47c., Yorkton 47c.

The report of the grain inspector of the Winnipeg district for the week ending Dec. 3rd is as follows: One hard, 120 cars; two hard, 32; one northern, 145; two northern, 10; three hard, 4; one spring, 48; one frosted, 1; rejected one, 14; rejected two, 6; no grade, 82; total, 462 cars—the largest number so far this season in one week.

Oats

Oats are now offering pretty freely all over the country. One reason for this is that they appear to have suffered less from weather than wheat and are scarcely so raw. Another is the feeling in the minds of the growers that it will be more to their advantage to hold good wheat on the chance of a rise, and sell oats to raise ready cash. In too many places the grain is thin and light and milling qualities far from abundant. The Winnipeg quotations are, on track: Feed oats, 22c. to 25c.; milling, 25c. to 28c. Shoal Lake and one or two other points north of Stonewall show best, so far, as regards quality.

Barley.

Feed, 25c. to 28c.; malting, not too plentiful, 30c. to 35c.

Millfeed

A shade easier all round. Bran, \$8; Shorts, \$10; chopped oats, \$18; wheat and barley mixtures, \$13 to \$17.

Hay.

Hay is considerably easier on the Winnipeg market, the good roads admitting of full supply. Loose, \$4 to \$6; baled, 40c. to 50c. per cwt.

Horses.

The demand is easy for ordinary horses, yet horses of quality bring a good figure. Several carloads of range horses are to be sold this and next week in Winnipeg.

Cattle.

The close of November practically saw the end of the cattle trade for this season. There are a few lots that may be moved yet, but the season is over. On the whole, it shows a very satisfactory state of affairs. In 1897 it is estimated that some 60,000 head were shipped out from Manitoba and the Territories, and for the past season 59,000 head. Of this number it is thought that there will be from 16,000 to 18,000 head of stockers. The remainder, say 40,000, represents the number of cattle sent forward. The rail-ways report the transportation of some 20,000 head of cattle to the western ranges for feeding. Most of these came from the farms of Manitoba, only about 2,000 head coming from the east. The trade in stockers with the United States is bound to have an influence in cutting down the number of fat animals sent out of the province, and ultimately the number of our export cattle. The total export of cattle from Montreal shows a shrinkage this year of 20,139 head. No doubt the shipping of so many stockers to the U. S. has had something to do with this, though it can be partially accounted for by the fact that some of the exporters shipped from American ports owing to the lower freight rates.

Top price at Winnipeg for export stuff is 3½c. Stockers are worth from 2½c. to 2½c. Butcher's cattle are in fair demand at from 2½c. to 3c.

Milk Cows.

The market is a little easier than it was last month, due to the inferior quality of the stock offering. Prices range from \$25 to \$40, according to quality.

Sheep.

The sheep trade has been somewhat quiet this year. The total exports from Montreal show a decrease of 26,263 head, as compared with 1897, and 45,680, as compared with 1896. This means a shrinkage of nearly 42 per cent. from last year and 56.6 per cent. from the year before. There is one bright spot in the sheep trade. Sheep raising is growing in favor on the western ranges suitable for it. The market at Winnipeg for sheep continues dull. Prices run from 3½c. to 3½c. off the cars. Lambs are quiet at 3½c. to 4c.

Hogs.

A review of the season shows a sharp decline in the number of hogs raised in the province. There has been quite a scarcity of hogs nearly all season and large quantities had to be brought in from outside points. In consequence prices during the year have ruled somewhat high. At present some supplies are coming in, principally from Ontario, but prices are somewhat easier, having dropped fully ½c. since last month. The best price going for live hogs is now 4 3-4c. and 5 3-4c. for dressed, off the cars.

Cheese.

There is a good demand for small cheese, though too often the quality of the make is somewhat indifferent. Small cheese command about ½c. more a pound than large ones. The factories are now closed and all supplies are in the hands of the jobbers. Prices range from 9½c. for large, to 10c. for small.

Creamery Butter.

The creameries are all closed, and what little stocks are left in the province are in the hands of the jobbers, but most of it has been shipped out. The market is steady at 22c. to 23c., according to quality.

Dairy Butter.

Owing to country merchants realizing on their stores of butter, prices are somewhat easier, 14c.

to 15c. being the price for round lots. Choice lots may bring 16c., but the proportion of choice in a shipment is small.

Eggs.

Fresh Manitoba eggs are not to be had. Could they be had, there is a good price for them. Fresh gathered Ontario eggs are going at from 17c. to 19c. One firm has brought in \$25,000 worth of them at one time. Pickled eggs bring from 16c. to 17c.

Poultry.

The supply of Manitoba grown chickens has been very small. There is practically no Manitoba stock on the market, the supply coming from the east. One firm that handles a large amount of poultry stated that they usually handle tons of Manitoba poultry, but this year they had not handled 500 lbs. of it. One firm sold a carload of poultry in less than two days and has five carloads on the way here now. Another firm has 500,000 lbs. of poultry on the way from Ontario. These shipments are principally turkeys and geese. There is surely an opening here for Manitoba farmers. Turkeys bring from 10c. to 12½c. a lb.; geese and ducks, 8c. to 10c. a lb.; chickens, scarce, 9c. to 10c. a lb.

Potatoes.

Are reported to be rotting very badly in many cases. Prices run from 35c. to 40c. per bushel.

Wool.

Nominal at 8c. to 8½c. per lb.

Hides

Hides are easier than they were last month, having dropped 1c. a lb. No. 1, 6½c.; No. 2, 5½c.; No. 3, 4½c. Frozen hides bring a flat rate of 6c., with a tare of 5 lbs. Branded hides usually grade No. 2; calf, 8c.; deacon skins, 15c. to 25c. each; sheepskins, 40c. to 55c. each; horse hides, 75c. to \$1.50 each.

Seneca Root.

Nominal at 21c.

Some months ago the Ogilvie Milling Co. bought the mill adjacent to their flour mill so long run by Stephen Nairn as an oatmeal mill. It has since been enlarged and fitted with the most perfect modern appliances, and has just been set to work. The products will be two sizes of granulated, and rolled oats. The oats grown here are as choice in quality as the wheat, and the facilities possessed by the Ogilvie firm for purchasing the pick of the oat crop of the west can hardly be approached by any other firm. This year's crop is not heavy, but already 50 cars of the best milling quality have been bought at the local elevators of the company, thus ensuring a fair start to the enterprise. Various preparations of Manitoba oatmeal have already been favorably launched on the British markets, and this strong firm will not fail to do its full share to push the business with a quality of product that will do full credit both to themselves and the country. Some districts here are more suitable for oat production than any other crop, and this new mill will be a help to the profitable marketing of the best they can raise. When contrasted with such American products as the widely advertised Quaker oats the produce of our northwestern mills shows a very superior flavor and the dressing and milling are equal to the very best that the foremost outside mills can show.

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Frolic of the Fruits.

Said the lemon to the squeezer, "Did you know 'twas Christmas time?"
 When I hob-nob with the cherry and the pineapple and lime;"
 But the grapes here interrupted, tumbling down in a bunch,
 Crying, "All of us in bottles makes the best part of the punch;"
 But the cocoanuts up-bristled—neither eyes nor hair they lacked—
 Yelling, "Milk beats all punches, do you think our heads are cracked?"
 The bananas pointed fingers full of scorn at all they saw:
 "We're the flour of Brazil, though we're better when we're raw."
 The bumptious apples chimed in with a peeling laugh and said:
 "Not a fruit can beat us painting any town and orchard red."
 The pomegranate objected, and a voice with mellow reach
 Sang, "Look upon this cheek and say, now ain't I just a peach?"
 Pecans began to rattle, and walnuts made a whirr
 To drown some northern voices: "You're a chestnut with a bur-r-r."
 The chestnut snapped their shells: "You've been roasted, too," they said;
 And the peanuts sneered—"Oh, we're the only nuts who have a head."
 The oranges and grape-fruit came slowly rolling in,
 Singing, "See the best of Christmas—we've a Klondike in our skin."
 The quince and the citron grumbled over family jars gone by,
 When their brethren from a stew fell to fingerling in pie.
 The melon rolled with laughter, as she bumped upon the stairs:
 "Preserved and pickled Christmas! watch the dinner come in pears!"
 The prunes began to simper as they clambered off their plates:
 "These fruits have got no memory, watch them take along dry dates."
 The procession fell in line, and the berries said
 "Burn!"
 But they didn't care a fig, and the currant jokes were "burn."
 They all took up a quickstep, and with many bounds and bobs
 They trooped into the sanctum—"Merry Christmas, Mr. Hobbs!"
 The gooseberry turned green, as she courtesied with a duck;
 "Here's your health in cherry-bounce; Happy New Year, Mr. Tuck!"
 —A Chestnut Burr, in Canadian Horticulturist.

Mulching and Spring Growth.

There is considerable difference of opinion on the question of mulching, with a view to retarding premature growth in the spring. Here, as in everything else, all depends on how the mulching is done. If put on before the frost has got a good hold in the ground, its obvious effect will be to keep that ground from freezing to anything like the depth it would otherwise reach. The way to keep back spring growth would be to keep off the mulch till well on in winter, then put it on fairly thick as far as the roots extend. It is reported that a gentleman in New York State was able to have strawberries later than anybody else, by laying blocks of ice on the top of the mulch, so preventing the warmth from waking up the plants.

On the other hand it is contended that, as all the material to produce buds and leaves was stored up in the bark of trees and bushes before winter set in, the sap will obey the call of nature and proceed to do its life's work under the influence of the sun's rays, with little regard to the condition of the soil below. This is really an important point in regard to both tree and fruit-growing that can be better settled by an appeal to experience than in any other way. Perhaps some of our fruit-growing readers can turn their attention to this

point, and may even now have facts to tell that will help to throw clearer light on the matter.

The Functions of Plant Roots.

The roots of plants are the organs by which all vegetation absorbs water from the soil, and with this water a variety of food elements necessary for plant development. The feeding power of roots is not simply confined to the taking up of ready formed solutions, but they are capable of attacking solid ingredients of the soil, and by means of an acid sap are able to decompose a portion of the rock masses they come in contact with, rendering it plant food and directly assimilable.

This action of the roots probably plays an important part in the supply of phosphoric acid and potash to the plant, as these substances, especially the former of them, exist in the soil in difficultly soluble forms, and are rarely found in solution in the water present in soils.

Not only does the root possess the property of dissolving its food from solid substances, but it is capable of seeking out that nourishment demanded by its organism, and travelling long distances for it. Roots take up whatever is offered them in solution, even though the material is injurious to the organism. Besides furnishing the plant with its ash constituents, the root has the important function of supplying nitrogen. This is nearly always taken up in the form of nitrates. In studying this subject of root functions the farmer is not only reminded again of the great importance of keeping his soil in the best possible tilth, so as to assist plant nutrition, but he readily sees the great importance of keeping available plant food in the soil in reach of the plant and of such kind and quantity as its needs demand. There is little nutriment to be found by roots that are compelled to reach out among a mass of impenetrable clods, nor can a plant attain the highest degree of perfection unless available material is accessible to build it up.—Farmers' Guide.

What fruit does a newly married couple resemble? A green pair (pear).

Ashes and lime are the Long Island gardeners' remedy for insects in the onion field.

The fruit growers of British Columbia are trying to keep the codling moth out of their province. Recently several shipments of Ontario apples were destroyed because they were infested with the apple worm, the larval stage of the codling moth.

A College of Forestry has been established at Cornell University in New York State. B. E. Fernbow is the director of the college. Thirty thousand acres in the Adirondacks are to be purchased as a demonstration forest, in which actual tests will be made of various kinds of planting and its effects. Other states are waking up to the importance of forestry, and Manitoba could fall into line with great good to herself.

The people of Prince Edward Island once thought they could not grow apples, but of late years it has been shown to them that they can grow fine apples, and this fall a trial shipment of 300 barrels was made by the local Fruit Growers Association to the British market on a Beaver line steamship which called for produce. In all there was loaded \$77,600 worth of eggs, butter, cheese, canned lobsters, etc., bacon, apples, horses, cattle and sheep. This is indeed an improvement on selling oats, hay and potatoes.

Dr. Howard, the new Secretary of the American Association for the Advancement of Science, writing of the manner in which seeds are carried to great distances by birds, recited an experiment of Darwin which had a curious result. Adhering to the leg of a wounded partridge, Darwin found a ball of earth weighing 6½ ounces. From the seeds contained in this ball he raised 32 plants belonging to five distinct species.

According to a reliable computation, a single tree is able, through its leaves, to purify the air from the carbonic acid arising from the respiration of a considerable number of men—as many as a dozen or a score. The volume of carbonic acid exhaled by a human being in the course of twenty-four hours is estimated at one hundred gallons; and a single square yard of leaf surface, counting both the upper and under sides of the leaves, can decompose about a gallon of carbonic acid in a day.

Luther Burbank, now at Santa Rosa, California, has been all his life a horticultural enthusiast, and was the originator of the well-known Burbank seedling potato when residing in his native State of Massachusetts. He removed to California 24 years ago, its climate being more suitable to his pursuits. While highly successful as a nurseryman, he kept on experimenting with all sorts of fruits and flowers. Ten years ago he originated a new strain of gladiolus, of which he grew 1,000,000 seedlings before he was satisfied he had varieties good enough to offer to the public.

A farm is like a book—you have to know what is in it. It takes time to study the book, so it takes time to study the farm to know what is in it and what it is capable of doing. It takes time to learn how to raise good crops and what crops to raise. As careful study is required to make the contents of a book your own, so the farm should be studied, in the light of the best knowledge you can bring to bear upon it, that you may be able to attain the highest success in the management of it. A good farmer is not one that can plow a straight furrow and do mechanical work well. These may have passed as ample qualifications at one time; they will not now. Brains count more upon the farm to-day than they ever did in the past, and there is room on the farm for the scope of brains of the highest order.



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Brome Grass in the Red River Valley.

The experiences of the farmers along the Red River valley to the south of the boundary with Brome grass are very encouraging. Twenty-five acres on the Minnesota sub-station at Crookston of this grass promises well. It is covering the ground thickly and was from 8 to 10 inches high when the frost came. The farmers think that it is particularly adapted to the soil, the climate and rainfall. It is a conqueror of weeds, for none of them can stand long against its persistent thick-growing habits, as it crowds them out. As illustrating what Brome grass will do, the following notes on one of the plots sown to this grass at this station will make interesting reading. The seed was sown in June, 1896, and during that season the young grass was frequently mown to keep down weeds, as the land was full of foul seed. In 1897 it was cut for seed early in July. As only the upper part of the seed stalks was taken, the balance made excellent stock pasture. The yield of seed was 400 lbs. per acre, which at the time was worth 15c. a lb. This is a profitable crop and costs so little to produce it. The greatest value of this grass lies, perhaps, in its great power of resisting drouth. This makes it a valuable grass in a semi-arid district. It is bound to prove a great blessing to farmers and a greater effort should be made to get a good start of it. There will be quite a large acreage of it sown in Manitoba next year. Many farmers have a small plot of it growing, from which they are hoping to get seed instead of buying it, as it has been rather expensive. At this sub-station red clover is doing well, although it was thought at one time that it would never grow in our prairie soil.

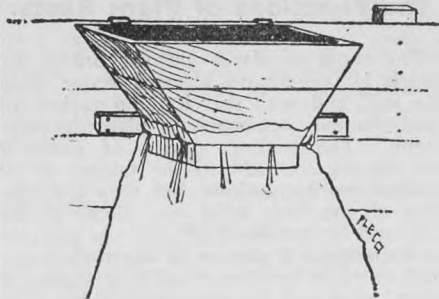
Methods of Manuring.

So far as we can learn, there is a pretty widespread opinion among practical farmers that to spread the manure on the land as it comes from the stable, either in summer or winter, is the way to get most good out of it. Of course, when it is wanted well-rotted for a special purpose, the dung heap is where we naturally turn to for a supply. As winter is the slackest season of our western year, to spread from the stable all through the winter is the most convenient as well as profitable. The Ohio Experiment Station has been working out experiments that appear to support this mode of manuring. Two years' test over four equal plots have been made on land intended for corn. Each had eight tons to the acre of cow manure applied, alternating the fresh with the well-rotted, keeping it near the surface in each case. The corn crop showed three bushels advantage for the manure from the stable, and the wheat crop that followed showed one bushel gain after the fresh manure. In both cases the manure showed a marked increase of production over the crops from land not manured at all.

Mr. Martell, of Manitou, has devised and set up a wheat drying plant. He expects to manufacture dryers for sale. The dryer consists of a revolving cylinder, sheeted with sieving and a fan to drive hot air against the cylinder.

Convenient Bag Holder.

The accompanying illustration, taken from the American Agriculturist, shows



how a very convenient bag holder and filler can be made.

Field Notes.

Oats, potatoes and buckwheat have been found to thrive better than wheat or clover on recently reclaimed bogs.

The Manitoba Grain Co. have sold out their business, including 37 elevators. The purchasers are the Northern Elevator Co., the Dominion Elevator Co., and the firm of Bready, Love & Tryon. This now makes the Northern Elevator Co.'s number of elevators 117.

The way to have a good market is to be ready to sell when prices are good. Another way is to always have the very best of its kind when you have anything to sell. If stock is kept at its best all the time, a rise in the market may be taken advantage of and the high price realized.

A recent determination at the Colorado Station shows that peavine hay is richer than any of the clovers in flesh-forming materials. A ton of alfalfa contained 297 pounds of protein; a ton of peavine hay cut while in bloom contained 400 pounds, and this, too, with only a slightly higher percentage of crude fibre than the alfalfa.

A Minnesota farmer suggests that farmers, who are greatly troubled with weeds, should introduce a system of diversified farming. This will tend to check the growth of many weeds that have gained an ascendancy through the one-crop system of farming so general in the west. More stock should be kept on every farm, and it could be done, too, without reducing to any very appreciable extent the quantity of grain sold.

In the French Journal of Practical Agriculture is a report that by accident a vine-grower found that a 5 per cent. solution of sulphate of copper, used in spraying his vines, was fatal to some sorts of wild plants. Over 200 gallons of this solution has been tried on an acre of wheat or oats, and it was found fatal to wild mustard, one of our most dangerous pests. Some other varieties of weeds were comparatively unhurt. Only a slight disadvantage to the grain resulted from the use of this mixture.

Prof. King says: "The soil is a wonderful laboratory in which a large variety of the lower microscopic form of life are at work during those portions of the year when its temperature is above freezing, breaking down the dead organic matter and converting it into those forms in which it again becomes available for plant food; and the farmer should never forget that the crop of these invisible organisms which are produced each year in his soil, determines in no small degree the magnitude of the harvest he removes from the ground and the fitness of that ground for a succeeding crop."

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Results of Tests at the Indian Head Experimental Farm.

By Angus Mackay.

I have much pleasure in sending you herewith a list of the principal yields of grain, roots, etc., grown on the North-west Experimental Farm during the past season. As the larger lots of grain are not yet threshed, the report cannot be taken as final results.

WHEAT.

Forty-two varieties of wheat were tested on one-tenth acre plots of summer fallow. Sown by drill at rate of $1\frac{1}{2}$ bushels per acre on April 21st, and harvested from August 16th to Sept. 5th.

Of these, 12 varieties yielded over 40 bushels per acre; 24 between 30 and 40 bushels, and the remaining 6 between 20 and 30 bushels. The ten highest were:—

	1898	1897	1896
	bus. lbs.	bus. lbs.	bus. lbs.
White Fyfe	45-30	35-30	41-00
Percy	45-20	38-40	40-10
Red Fyfe	44-20	37-50	41-20
Monarch	43-20	35-20	41-10
Stanley	43-10	31-00	40-30
Wellman's Fyfe	43-10	37-50	42-00
White Connell	42-30	35-20	43-00
Captor	42-30	36-00	40-20
White Russian	42-10	31-50	40-30
Preston	41-20	36-00	41-50

WEEK APART SEEDINGS TO DETERMINE BEST TIME TO SOW WHEAT.

Red Fyfe and Stanley were sown each week for six consecutive weeks, on fallow, by drill at rate of $1\frac{1}{2}$ bushels per acre.

	Date of Seeding in	1898	1897
		bus. lbs.	bus. lbs.
Red Fyfe	Apr. 16	45-00	39-10
"	Apr. 23	42-30	37-40
"	Apr. 30	43-10	35-30
"	May 7	40-30	34-40
"	May 14	40-50	35-00
"	May 21	44-30	33-20
Stanley	Apr. 16	41-50	37-40
"	Apr. 23	35-00	36-40
"	Apr. 30	36-50	36-50
"	May 7	33-50	30-40
"	May 14	32-00	31-40
"	May 21	30-40	25-50

The two last seedings of Red Fyfe and last of Stanley were damaged by frost before being ripe.

TEST OF SOWING WHEAT AT DIFFERENT DEPTHS.

	1897	1898	Average for 7 Years.
	bus. lbs.	bus. lbs.	bus. lbs.
Red Fyfe, sown 1 in. deep	40-00	35-10	38-20
Red Fyfe, sown 2 in. deep	40-40	32-00	40-06
Red Fyfe, sown 3 in. deep	33-50	34-00	37-00

TEST OF SOWING DIFFERENT QUANTITIES OF SEED WHEAT PER ACRE.

	1897	1898	Average for 7 Years.
	bus. lbs.	bus. lbs.	bus. lbs.
Red Fyfe, sown at rate of 1 bush. per acre	38-30	34-50	32-20
Red Fyfe, sown at rate of $1\frac{1}{2}$ bush. per acre	38-50	39-10	34-33
Red Fyfe, sown at rate of 2 bush. per acre	38-40	42-10	34-39

PRESS VS. HOE DRILL.

	1897	1898	Average for 7 Years.
	bus. lbs.	bus. lbs.	bus. lbs.
Red Fyfe, sown by press drill	41-00	42-40	36-49
Red Fyfe, sown by hoe drill	39-00	45-40	35-21

SMUT TESTS.

	1897	1898	
	Per Ct. Good Heads.	Per Ct. Smutty Heads.	Yield bus. lbs.
Red Fyfe Wheat	93.2	1.8	35-10
Clean seed, blue-stoned	100		35-40
Clean seed, untreated	80.6	19.4	35-00
Smutty seed, blue-stoned	93.2	1.8	35-10
Smutty seed, untreated	80.5	19.5	35-00

The smutted seed used was badly affected and unfit for any purpose.

OATS.

Sixty-four varieties of oats were tested on one-tenth acre plots of fallowed land. Sown May 2, harvested August 24 to Sept. 12. Of these, 14 varieties yielded over 70 bushels per acre; 24 varieties between 60 and 70 bushels; 19 sorts between 50 and 60 bushels; 6 varieties between 40 and 50 bushels, and one variety less than 30 bushels. The ten highest were:—

	1898	1897	1896
	bus. lbs.	bus. lbs.	bus. lbs.
Buckbee's Illinois	79-14	79-4	70-50
Rosedale	76-26	83-28	66-16
Columbus	76-16	86-30	89-24
Abyssinian	75-30	87-2	75-10
Early Maine	75-10	78-8	92-12
American Beauty	75-00	75-30	89-24
Oderbruch	75-00	67-12	72-22
Improved American	72-22	86-26	95-30
Banner	72-2	52-2	94-4
Early Blossom	71-26	79-4	78-8

All plots of oats were twice cut back by frosts in May, and more or less injured by winds later in the season. The plot which yielded less than 30 bushels per acre was nearly cleaned out. Banner oats in this test were ninth on the list in yield. Winds injured the plot considerably, as the same seed in the week apart tests gave nearly 90 bushels per acre.

WEEK APART SEEDINGS TO DETERMINE THE BEST TIME TO SOW OATS.

Banner and Abundance oats were used in this test. Sown on one-tenth acre plots of fallow land by drill at rate of $2\frac{1}{2}$ bushels per acre.

	Date of Seeding in	1898	1897
		bus. lbs.	bus. lbs.
Banner	Apr. 23	101-16	81-6
"	Apr. 30	78-13	81-16
"	May 7	90-00	88-28
"	May 14	88-8	83-8
"	May 21	73-18	83-18
"	May 28	49-24	79-14
Abundance	Apr. 23	78-18	83-14
"	Apr. 30	33-3	84-14
"	May 7	91-16	65-10
"	May 14	84-14	83-8
"	May 21	69-24	85-10
"	May 28	58-28	79-14

BARLEY.

Twenty-two varieties of six-rowed and 16 varieties of two-rowed barley were tested. Sown on May 4 on fallowed land by drill at rate of 2 bushels per acre, and harvested August 8 to 27. Of the six-rowed, 6 varieties yielded over 50 bushels; 13 varieties between 40 and 50 bushels, and 3 varieties between 30 and 40 bushels per acre. Of the two-rowed, 8 varieties over 50 bushels, 5 between 40 and 50 bushels, and 3 between 30 and 40 bushels per acre. The 6 highest yields of 6-rowed barley are:—

	1898	1897	1896
	bus. lbs.	bus. lbs.	bus. lbs.
Rennie's Improved	56-32	68-6	55-20
Petschora	54-38	70-00	58-16
Odessa	53-6	68-6	62-24
Eaxter's	52-14	66-32	65-00
Trooper	51-22	57-44	67-14
Phoenix	50-20	51-12	58-00

The eight highest 2-rowed varieties:—

	1898	1897	1896
	bus. lbs.	bus. lbs.	bus. lbs.
Darlish Chevallier	57-44	52-4	61-22
Thanet	54-18	45-10	50-30
Prize Prolific	53-36	50-00	52-4
Newton	53-16	51-2	63-36
Kinver Chevallier	53-6	51-2	42-24
French Chevallier	53-6	53-16	73-16
Canadian Thorpe	50-10	53-6	65-00
Sidney	50-10	44-38	61-42

The barley was also injured by frost and wind, and the sample has been much discolored by rain during harvest.

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A course of remedies—the marvel of medical science—and Apparatus indorsed by physicians will be sent ON TRIAL, WITHOUT ADVANCE PAYMENT. If not all we claim, return them at our expense.

MEN WHO ARE WEAK, BROKEN DOWN, DISCOURAGED, men who suffer from the effects of disease, overwork, worry, from follies or excesses, from unnatural drains, weakness or lack of development of any portion of the body, failure of vital forces, unfitness for marriage—all such men should "come to the fountain head" for a scientific method of marvellous power to vitalize, develop, restore and sustain. On request we will send description, with testimonials, in plain sealed envelope. (No C. O. D. imposition or other deception.) Address

Erie Medical Co., Buffalo, N.Y.

Of Interest To Farmers who have Scrub to Remove.

The patent has just been issued for an implement that will effectually remove scrub of all kinds, root and branch. It does not matter whether the top is on or off.

These **LAND SCRUBBERS** are made for either one or two teams and are guaranteed unbreakable and will last a lifetime. They weigh from 45 to 50 lbs. and are made of the best sleigh shoe steel. The patentee has been working on this scrubber for some years and it is now perfected. One man with one team of horses will pull as much scrub in one day as any five men will chop, and will do it right.

Correspondence solicited. All questions promptly answered. Address—A. E. BROWN, Hamiota, Man.

READ WHAT IS SAID OF IT:—

The "Hamiota Hustler," of Oct. 25, 1898, says of this machine: "Mr. A. E. Brown gave a test exhibition of his Patent Land Scrubber on Friday afternoon last. About 100 farmers and others were present to see the Scrubber working, and the general expression of opinion was that 'It was just the thing for taking out scrub.' Clumps of willow scrub and poplar trees were taken out slick and clean with one team of horses. An implement of this kind will no doubt be appreciated by farmers who have land to clear of scrub. It certainly does the work well and is a great improvement on the old style of cutting out by hand."

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NEAR ROSSER AVE.

COMBAULT'S is the only reliable and safe CAUSTIC BALSAM on the market. It is manufactured in France and guaranteed as represented.

WEEK APART TEST TO DETERMINE THE BEST TIME TO SOW BARLEY.

The two varieties used were Odessa, 6-rowed, and Canadian Thorpe, 2-rowed. Sown on fallow, plots one-tenth acre each; drill, at rate of 2 bushels per acre.

	Date of Seed'g in 1898	Yield in	
		1898 bus. lbs	1897 bus. lbs
Odessa	Apr. 23	75-00	55-40
"	Apr. 30	77-4	56-42
"	May 7	64-18	54-18
"	May 14	71-2	48-36
"	May 21	61-12	47-34
"	May 28	63-6	47-44
Canadian Thorpe	Apr. 23	58-6	36-2
"	Apr. 30	56-12	36-42
"	May 7	46-22	44-38
"	May 14	44-18	56-42
"	May 21	44-38	57-34
"	May 28	43-6	57-44

The first two seedings of Thorpe variety were, in some way, blighted, and ripened before the Odessa, which accounts for small yield. The dry hot third week in June injured the plots.

PEASE.

Forty-eight varieties of pease were sown on one-tenth acre plots of fallow. A few varieties ripened early, but the majority were late. The heavy rains of July gave many sorts a fresh start, resulting in a very heavy crop of straw and late ripening of the grain. All, however, gave good returns. Two varieties yielded over 50 bushels, 14 varieties between 40 and 50 bushels, 26 varieties between 30 and 40 bushels, and 6 varieties between 20 and 30 bushels. The ten highest are:—

	Yield in		
	1898 bus. lbs	1897 bus. lbs	1896 bus. lbs
Paragon	57-50	29-30	43-20
Trilby	55-10	31-59	41-40
Perth	48-30	29-30	.....
Bruce	49-30	27-10	28-20
Golden Vine	49-00	34-10	40-20
Crown	45-30	32-50	40-3
Pride	44-50	29-50	33-20
Duke	44-30	28-30	43-00
Early Britain	44-00	28-00	.....
New Potter	43-20	33-20	28-20

THE HAY CROP.

The hay crop has been the lightest cut in seven years. Light rainfall in the spring, combined with the very dry weather of the preceding fall, was no doubt the cause of the poor returns. Brome grass requires an early start, which, if delayed too long, results in a failure of the crop. The present wet season has produced excellent pasture on the Brome sod, and a good crop for next year is almost assured.

ROOT CROP.

The crop of roots just stored is the best ever grown on the farm. Mangels and turnips gave very large yields of fine roots, and carrots, which are not usually a success in this country, did fairly well.

VEGETABLES.

Vegetables, as a rule, and more especially potatoes, cabbage and onions, were a very fine crop. Of 100 varieties of potatoes tested, only one yielded less than 300 bushels per acre, 10 varieties yielded between 300 and 400 bushels, 25 varieties between 400 and 500 bushels, 43 varieties between 500 and 600 bushels, 20 varieties between 600 and 700 bushels, and one variety over 700 bushels per acre. The highest ten were:—

	Yield in		
	1898 bus. lbs	1897 bus. lbs	1896 bus. lbs
Polaris	708-12	268-24	301-24
Early Sunrise	677-36	288-12	286-00
Beval	673-12	162-48	.....
New Variety, No. 1	660-00	.....	299-12
Late Puritan	655-36	169-24	345-24
Everett	649-00	129-48	234-24
American Giant	646-48	.....	376-12
Reeve's Rose	636-40	251-00	.....
Daisy	633-36	217-48	297-00
Clark's, No. 1	631-24	320-00	288-12

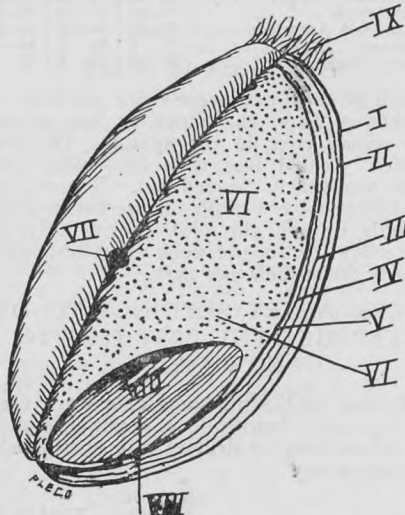
TREES AND SHRUBS.

Trees and shrubs made excellent progress during the entire season, but continued growing too late to allow the wood to properly mature. Severe cutting back and probably loss will follow this winter.

Aphis on the maples and beetles on the cottonwood have required constant attention during the season, a great many trees having to be sprayed several times.

The Chemistry of Wheat and Its Products.

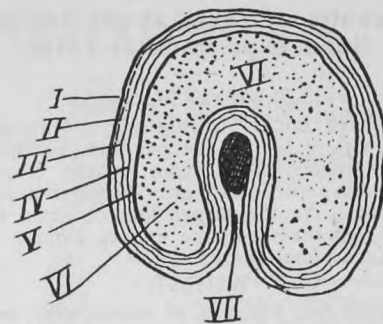
Just now, while so much wheat is being handled, may be a good time to study the structure of the wheat berry and have a look at its composition, and also that of



WHEAT GRAIN CUT IN TWO LENGTHWISE OF THE CREASE.

- I. Epidermis.
- II. Epicarp.
- III. Endocarp.
- IV. Testa or Tegumen.
- V. Gluten cells or Aleurone layer—Middlings.
- VI. Endosperm—Flour.
- VII. Crease.
- VIII. Germ or chit.
- IX. Brush or beard.

some of its products. The accompanying illustrations will help us to understand the



CROSS SECTION OF A GRAIN OF WHEAT.

structure of the berry. Commencing at the outside of the grain, we have the outer covering or husk, or bran, as it is called when removed. The bran is composed of three or four, some say five, separate layers, the epidermis, epicarp, endocarp and the testa or tegmen. Underneath this comes a layer of gluten, called the perisperm or aleurone layer, while the bulk of the centre of the berry is made up of starch cells, mixed with which are some gluten cells; this is called the endosperm. Then we have the division between the lobes of the grain, called the crease. This is a peculiarity which distinguishes the wheat grain from all other cereals. Within this furrow, or crease, there is a duct, believed by physiologists to be used in conveying soluble nutriment to the inner parts of the grain during its progress to maturity. At the large end of the berry lies the germ, or chit. This is the most complex part of the wheat grain, and contains the spark of life, which springs into activity when the conditions for germination are present. The germ contains oily matter, and is very rich in albuminoids or protein or gluten compounds. At the other end of the berry is what is called the brush or beard. This hairy covering at the small end of the berry is believed to carry moisture during the development of the young grain, as the hairs are hollow.

Having examined the structure of the berry, let us look at its composition. Farmers know that Manitoba No. 1 hard wheat is a prime article and much in demand, but why? The following table,

A GREAT REMEDY.

Greatly Tested.

Greatly Recommended.

The loss of the hair is one of the most serious losses a woman can undergo. Beautiful hair gives many a woman a claim to beauty which would be utterly wanting if the locks were short and scanty. It is almost as serious a loss when the natural hue of the hair begins to fade, and the shining tresses of chestnut and auburn are changed to gray or to a faded shadow of their former brightness. Such a loss is no longer a necessity. There is one remedy which may well be called a great remedy by reason of its great success in stopping the falling of the hair, cleansing the scalp of dandruff, and restoring the lost color to gray or faded tresses. Dr. Ayer's Hair Vigor is a standard and reliable preparation, in use in thousands of homes, and recommended by everyone who has tested it and experienced the remarkable results that follow its use. It makes hair grow. It restores the original color to hair that has turned gray or faded out. It stops hair from falling, cleanses the scalp of dandruff, and gives the hair a thickness and gloss that no other preparation can produce.

Mrs. Herzmann, of 356 East 68th St., New York City, writes:

"A little more than a year ago, my hair began turning gray and falling out, and although I tried ever so many things to prevent a continuance of these conditions, I obtained no satisfaction until I tried Dr. Ayer's Hair Vigor. After using one bottle my hair was restored to its natural color, and ceased falling out."—Mrs. HERZMANN, 356 East 68th St., New York City.

"I have sold Dr. Ayer's Hair Vigor for fifteen years, and I do not know of a case where it did not give entire satisfaction. I have been, and am now using it myself for dandruff and gray hair, and am thoroughly convinced that it is the best on the market. Nothing that I ever tried can touch it. It affords me great pleasure to recommend it to the public."—FRANK M. GROVE, Faun-dale, Ala.

There's more on this subject in Dr. Ayer's Curebook. A story of cures told by the cured. This book of 100 pages is sent free, on request, by the J. C. Ayer Co., Lowell, Mass.

giving the composition of wheats grown in different countries, may help explain the reason of this. These figures are the averages of a large number of analyses. That given of American wheat is the average of 310 samples from all sections of the country. The Canadian figures are taken from Prof. Shutt's reports.

Composition of Wheat from Different Countries.

Wheat.	Water.	Albuminoids or Gluten.	Fat.	Carbo-hydrates (Sugar Starch.)	Crude Fibre.	Ash.
Russian ..	11.49	19.48	1.51	.....	.....	.....
Bulgarian ..	12.40	11.55	1.52	70.91	1.95	1.67
Australian ..	11.54	9.10	1.55	73.94	2.04	1.82
Argentine Republic	9.55	12.78	1.84	71.55	2.69	1.99
Costa Rica ..	10.74	12.12	1.69	71.23	2.44	1.78
Spanish ..	10.54	12.60	1.80	70.67	2.42	2.01
Oregon ..	11.53	9.19	1.72	73.61	2.25	1.69
American (average)	10.05	11.09	2.01	71.09	1.08	1.08
German ..	14.40	13.00	1.50	66.40	3.00	1.70
English ..	14.40	11.03	1.50	68.10	3.00	1.70
Ontario ..	11.75	10.51	1.81	72.27	2.27	1.39
Manitoba ..	11.98	14.62	1.84	67.77	2.32	1.47
Northwest Territories	11.55	14.53	1.80	68.35	2.14	1.63

The composition of wheat varies very much; in fact, wheat is easily influenced by soil, climate and manuring. A dry or hot climate tends to produce a high content of starch, but at the same time it decreases the amount of albuminoids or gluten. Manitoba and the Territories possess a climate favorable to the development of a high content of albuminoids, and at the same time the wheat is dry and hard. The presence of gluten in flour gives what is called strength in the dough; that tenacity which enables the dough to retain the gas bubbles produced by the yeast fermentation, thereby yielding a light porous bread. The aim of the miller is to make as white a flour as possible. He thus tries to secure all the starch granules and as much of the gluten as possible. The germ, though containing gluten and oily substances, is rejected because it is of a yellow color and makes a sticky dough. The layer of gluten cells or perisperm or aleurone layer is also rejected because it gives flour a brownish tint. So both these are separated out, the one to make germ meal, the other usually goes into the middlings. It will thus be seen that the most nutritive substances are taken away from the original wheat and a product left as flour whose principal ingredient is starch. In the manufacture of flour about 25 per cent. of the original wheat grain remains as offal, and is of great value as stock food.

The by-products from the mills may be grouped under three heads: Bran, shorts and middlings. The bran, as we have mentioned consists of the outer layers and the gluten cells with some of the starchy matter attached to them. The shorts are a compound between bran and middlings. Bran and middlings are somewhat interchangeable terms, but too frequently now shorts are only re-ground bran. The middlings contain the finer parts of the bran, some flour, and frequently the germ of the wheat grain. In the large mills all these products are divided into a large number of grades, so also is the flour. In one of the largest mills in Minnesota no less than 72 grades of product are sold from the original wheat.

The comparative feeding value of the by-products of wheat may be roughly estimated from a knowledge of its composition, but can be understood more readily by studying the following table, compiled from the reports of the Chemical Division of the U. S. Department of Agriculture.

HOGS WANTED

We are now running full time and open to buy all HOGS offered. Hogs weighing 150 to 250 lbs. live weight command the highest price.

J. Y. GRIFFIN & CO.
PORK PACKERS,
WINNIPEG, MAN.

BLACK LEG

PASTEUR VACCINE

IS THE
Preventive Remedy.

PASTEUR VACCINE CO.

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There Is No Doubt About the MERIT of THE KEYSTONE DEHORNING KNIFE. It cuts both ways, does not crush. One clip and the horns are off close. Write for circular. The Keystone Dehorner Mfg. Co., Picton, Ont., Can.

The Weekly Free Press

Mailed every Thursday morning from date of order till January 1st, 1900, for ONE DOLLAR.

The Semi-Weekly Free Press

Mailed every Monday and Thursday mornings from date of order till January 1st, 1900, for TWO DOLLARS.

The HOME JOURNAL, a supplement to the Thursday edition of each of the above, contains useful and interesting information for the farm, the home and the fireside.

The news of the world for the week of issue is given more fully, arranged in better form and covers a wider range of subjects than any other paper in Western Canada.

THE WEEKLY and SEMI-WEEKLY FREE PRESS for 1899 will contain the news of the week and other interesting features up to its usual standard. It will, in addition, contain many new features of special interest to farmers.

Mail orders will receive prompt attention. Enclose the cash with the order in a registered letter, or a P.O. or Express order without registration, \$1.00 for the Weekly or \$2.00 for the Semi-Weekly; and address

The Manitoba Free Press Co.,
WINNIPEG, MAN.

BRIGHTEST AND BEST
OGILVIE'S FLOUR
LEADS ALL THE REST.

ture, being the average of a large number of analyses.—

Comparative Values of Wheat By-Products.

	Water.	Albuminoids or Protein.	Carbo-hydrates or sugar, starch, etc.	Fat	Crude Fibre.	Ash
Wheat	10.5	11.9	71.9	2.1	1.8	1.8
Whole Wheat						
Flour	13.1	11.7	69.8	1.7	1.9	1.8
Wheat Flour ..	12.4	10.8	75.0	1.1	2.0	2.5
Bran	11.9	15.4	53.9	4.0	9.0	5.8
Shorts	11.8	14.9	56.8	4.5	7.4	4.6
Middlings ...	12.1	15.6	60.4	4.0	4.6	3.3

It will be seen that the bran, shorts, and middlings are all richer than the original wheat in those constituents of the most importance in feeding live stock, namely, the albuminoids or protein, which go to produce muscle, flesh, and milk; the carbohydrates, which are largely used for producing heat; and the fat also used in producing heat and laying on fat. These foods also contain a large share of crude fibre and ash or mineral matter. Bran has a particularly large share of crude fibre, but this makes it a very safe food for feeding stock, as it can be fed in almost unlimited quantities without any danger. The ash or mineral matter is of special benefit to young growing stock in building bone.

One more point and we are done. Warrington, an English chemist, says that a crop of 30 bushels of wheat to the acre removes about 33 lbs. of nitrogen, 14.2 lbs. of phosphoric acid, and 9.3 lbs. of potash from the soil in the grain alone. These are the three most important plant foods, and the constant removal of them by selling away the wheat will in time impoverish the soil. If bran were fed to live stock and the resulting manure put back on the land the store of fertility would be conserved. Reference to the table will show that the by-products contain almost all the ash or mineral matter in the original wheat. The analysis of the ash in a ton of bran shows that it contains about 48 lbs. of nitrogen, 65 lbs. of phosphoric acid, and 30 lbs. of potash. Valued at the usual prices for these ingredients in a commercial fertilizer, it would amount to over \$12.00. In other words, valued at the same as a commercial fertilizer, bran is worth \$12.00 a ton to sow on the land to plow down as manure. Its value for this purpose lies in the ash and the protein compounds, as they contain the nitrogen. It will pay no man to sow bran this way, for he can get another use out of it and still have its manurial value. Fed to live stock, the full feeding value can be obtained and repeated experiment and analysis show that from 80 to 90 per cent. of its fertilizing value will be left in the manure. If plenty of bran were fed to stock and the resulting manure put on the land, the inevitable day of an exhausted soil would be set far in the future.

The New South Wales Minister of Agriculture is considering the advisability of recommending to his government the appointment of a grain standards board similar to the Canadian board for the purpose of annually selecting standard samples of grain for grading.

Spread all this winter's manure as fast as it is made out on land that is to be summer fallowed next season. It is a very good plan to spread manure on a piece of grass land. If put out early, before there is much snow on the ground it will rot down very readily in the spring, and the extra growth of grass will more than repay the trouble.

Analysis of Brome Grass Hay.

Brome grass is proving a valuable grass for Manitoba and the Territories. It furnishes the earliest bite in the spring and the last in the fall. Read Mr. Godsal's letter in the correspondence column and find out what it is doing in the west. The grass stands pasturing well and gives a heavy growth of after-cutting which neither prairie grass nor timothy will do. In this way Brome grass is going to prove a good thing for keeping up the flow of milk in the fall or for putting stock in fine shape for the winter.

Its value as hay is less known because so far the demand for seed has been so great that the small area of the grass that has been sown has been allowed to ripen to furnish means of seeding down a larger area either for the grower or his neighbors. The threshed hay has been found to be good feed, and that our readers may be better posted as to the feeding value of the hay itself, the threshed hay and chaff, we reproduce the analysis of these products as given by Prof. Shutt in his last annual report. The samples were grown on the Indian Head farm and sent to Ottawa for analysis. To the table we add the analysis of the fresh grass cut at the same time as No. 1. The analysis of timothy grass and hay are also given, in each case being the average of a large number of analyses, taken at various stages of ripeness.

ANALYSES OF HAY AND CHAFF OF Awnless BROME GRASS AND TIMOTHY.

Stage of growth at which the grass was cut and made into hay.	Hay.						Calculated to Water—Free Substance.					
	Water.			Ash.			Water.			Ash.		
	Protein, (albuminoids).	Fat (ether extract).	Carbo-hydrates (nitrogen-free extract).	Fibre.	Protein, (albuminoids).	Fat (ether extract).	Carbo-hydrates (nitrogen-free extract).	Fibre.	Protein, (albuminoids).	Fat (ether extract).	Carbo-hydrates (nitrogen-free extract).	Fibre.
1. Seed just formed; in prime condition for hay; cut 13th July	6.47	7.87	7.54	4.14	42.56	31.42	8.42	8.10	4.42	45.46	33.60	16.7
2. Seed ripe; unthreshed; cut 24th July	8.28	7.39	5.76	3.15	43.16	32.26	8.05	6.28	3.43	47.07	35.17	15.6
3. Ripened; threshed; hay (straw)	7.62	7.23	6.05	3.80	38.73	36.55	7.83	6.35	4.11	42.15	39.56	15.6
4. Chaff from thrasher, containing some seed	8.63	9.01	10.70	4.86	42.88	23.92	9.86	11.21	5.32	47.42	26.1	1
5. Timothy, average of 63 analyses	13.2	14.4	5.9	2.5	45.0	29.0	5.1	6.8	2.9	51.7	33.59	7
Analysis of Fresh Grass.												
6. Cut same as No. 1	65.07	1.32	4.14	.84	16.90	11.73	3.78	11.88	2.41	48.03	33.90	7
7. Timothy, average of 56 analyses	61.6	2.1	3.1	1.2	20.2	11.8	5.4	8.9	3.1	52.8	30.7	7

A study of the table will show that sample No. 1, cut when seed is just formed, is the most nutritious, i.e., it has the protein and fat in the largest quantities and the least crude fibre. When the seed is ripe, as in sample No. 2, a change has taken place; a certain amount of the starchy matters has become woody, or, as the chemist calls it, crude fibre, and is therefore less digestible and the hay made from it is of less value for feeding purposes. There is also less fat and protein. These changes are more marked in No. 3, and still more so when calculated to the water free substances.

When the ripened grass has been threshed and the seed removed, the threshed hay (or really straw) shows more favorably than we would expect it. It surprises Prof. Shutt, who accounts for it by suggesting that in the threshing some of the least valuable parts of the plant have been lost. The chaff is a good fodder, being rich in protein and fat, and containing less fibre than any of the other samples. There must have been quite a lot of seed in the chaff. The threshed material thus shows up well, and farmers should find good results in feeding it.

When writing, mention The Farmer.

It Pays to Bluestone Wheat.

As a rule, the fool is the last man in the world to see his own folly. The "giftie," to which Robert Burns referred, which enables us "to see oorsel's as ithers see us," is a faculty which is rare among this section of the great human family, and generally the fool and the self-sufficient man have a duplicated identity. We came across one of these unfortunates the other day, who informed us that he knew so much himself that he had got beyond the help of an agricultural paper, and thought that he could work out any new information which he needed from his own experience. He was working it out, too. Out of his own infallibility he had last spring concluded that the use of bluestone or other dressing on seed wheat was unnecessary, and while telling us of his all-sufficiency in managing his own affairs, he was seated on the top of a load of wheat which he was selling at 35 cts. per bushel, which would have brought 47 cents if it had been free of smut. He was the only man in his neighborhood whose wheat had been affected. This, too, according to his own story. On his 1,500 bushels he thus loses to the tune of \$180, which sum represents the cost of this little item of experience. Last spring he knew enough not to bluestone; now he knows enough to use the drug in the future, and, as he seems now to regard his newly-gained wisdom as the Alpha and Omega

of agricultural lore, he is contented still to go on by himself, and "let who will be wise."

Speaking of the question as to whether or not bluestone affects the germinating vigor of wheat, one farmer told us the other day of a pretty severe test which he made along this line. He put the entire quantity of bluestone used for the season into a barrel, poured water on it, and dipped his grain into the liquid. As the bluestone dissolved, more water was added. About the first of the seeding he spilled some wheat into the barrel. This lay there during all of his wheat-sowing, but, as an experiment, he took the grain out at the close, and sowed it. It was blue with the chemical, but it grew just the same.

A CURE FOR ASTHMA.

Asthma sufferers need no longer leave home and business in order to be cured. Nature has produced a vegetable remedy that will permanently cure Asthma and all diseases of the lungs and bronchial tubes. Having tested its wonderful curative powers in thousands of cases (with a record of 90 per cent. permanently cured), and desiring to relieve human suffering, will send free of charge to all sufferers from Asthma, Consumption, Catarrh, Bronchitis and nervous diseases, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail. Address, with stamp, naming this paper, W. A. Noyes, 920 Powers' Block, Rochester, N.Y.

Home Reading Circles for Farmers.

The long winter evenings are here; what are you going to do with them? The Farmer has a suggestion for you, and it is that you start a Home Reading Circle in Agriculture. The reason we suggest such a course is that the enormous extension of railway and shipping facilities has brought the farmers of Canada into competition with the farmers of all countries in the world. In this world-wide competition that country, whose people possess the best education and employ the greatest amount of skill and knowledge in the production of the goods they send to the world's markets, will certainly gain the supremacy. The long winter evenings present a grand opportunity for farmers and their families to acquire a fuller and better knowledge of the many principles constantly put into practice on every farm in the country—knowledge which will add a new charm and interest to life on the farm, as well as being conducive to better financial returns.

We would think that among the members of a farmers' institute would be a good place to start a reading circle. The books could be read chapter by chapter, and difficult questions could be talked over and explained at the regular meetings. It is not necessary that the membership of a circle be confined to the membership of an institute. The circle can be as large or as small as found convenient. There is nothing to prevent a half dozen or more persons making up a circle, or, for that matter, a person could be a circle all by himself.

Home reading circles have been very successful along the lines of general knowledge, as, for instance, the Chautauqua course. In the States of Michigan and Pennsylvania reading circles in agriculture among the farmers have been productive of much good. From the courses of reading that have proved successful in these States we propose the courses given below. Anyone of these courses may be taken up quite readily by a group of farmers during the winter. A list is given of the most suitable books for reading in connection with each course. If anyone wants other books on any of the courses we will be pleased to suggest other good reliable works.

I. SOILS AND CROP PRODUCTION.

1. First Principles of Agriculture (Mills and Shaw) pages 1-116, 40 cents.

This work gives a correct knowledge of the elementary scientific principles underlying improved practices of successful farmers. The following are the principal chapters: Definitions and Explanations. The Plant; Tillage; The Improvement of Soils; Preparation for the Seed; The Rotation of Crops; Crops for Soiling; The Weeds of the Farm; Diseases of Crops; Insects Injurious to the Farm. The latter half of the book is offered in Class 2.

2. Soils and Crops (Morrow and Hunt) 300 pages) \$1.00.

Treats of the methods of making available the plant food in soil. A short history of each of the leading farm crops is given, accompanied by a discussion of its culture. In this is explained the most useful discoveries of science as applied to approved methods of culture.

3. Fertility of the Land (Roberts) 400 pages, \$1.25.

Discusses the plant food in the soil and how to make it available: the manufacture and application of manures, where, when, and how to drain, etc.

4. The Soil (King) 300 pages, \$1.00.

Gives a thorough discussion of the soil in its various aspects to agriculture. Treats of the production texture and composi-

tion of soils, soil temperatures, drainage, irrigation, tillage, etc.

II. LIVE STOCK PRODUCTION.

1. First Principles of Agriculture (Mills and Shaw) pages 116 to 250, 40c.

Principles of feeding, care, management of horses, cattle, sheep and swine.

2. Stock Breeding (Miles) 400 pages, \$1.50.

Discusses the principles of breeding; breeding as an art; heredity of characters and disease; in and in breeding, cross breeding and grading; pedigrees, etc.

3. Horse Breeding (Sanders) 275 pages, \$1.50.

Gives a discussion of the principles of breeding; the origin; description and breeding of the various breeds; care of stallions, brood mares and foals; diseases and remedies.

4. Swine Husbandry (Coburn) 300 pages \$1.75.

The history, characteristics and adaptability of the various breeds; breeding and fattening; houses and pens; diseases; slaughtering, marketing, etc.

5. The Domestic Sheep (Stewart) 370 pages, \$2.00.

Treats of the history and characteristics of the various breeds of sheep; breeding, feeding and general management; wool, its nature and uses; diseases of sheep, etc.

6. Poultry Culture (Felch) 430 pages.

Describes the favorite breeds and discusses their breeding and management; buildings; care and feed of fowls; diseases, etc.

7. Feeds and Feeding (Henry) 650 pages, \$2.00.

Diseases; the various phases of animal nutrition; consumption of the animal body; influences of environment, climate, etc.;

compounding rations for the various classes of animals; the results of various rations from actual tests; care and management of the various farm animals, etc.

III. DAIRYING.

1. Milk and Its Products (Wing) 280 pages, \$1.00.

The secretion, flow and composition of milk; the methods of testing milk; ferments and fermentation of milk and their control; separation of cream by various processes; ripening cream, churning, and finishing and marketing butter; the manufacture of various kinds of cheeses; by-products of the dairy; location and construction of factories.

2. Dairy Bacteriology (Russell) 180 pages, \$1.00.

The composition of milk; various sources of milk infection; care of milk from the stable to the separator; fermentation and preservation of milk; relation of disease bacteria to milk; abnormal changes in butter, cheese, etc.

3. Milk; Nature and Composition (Aikman) 180 pages, \$1.25.

Formation of milk; causes influencing the quality and quantity of milk; changes in milk; milk bacteria; milk testing; butter, cheese, etc.

4. Feeds and Feeding (Henry) 650 pages, \$2.00.

Diseases; the various phases of animal nutrition; composition of the animal body; influences of environment, climate, etc.; compounding rations for the various classes of animals; the results of various rations from actual tests; care and management of the various farm animals, etc.

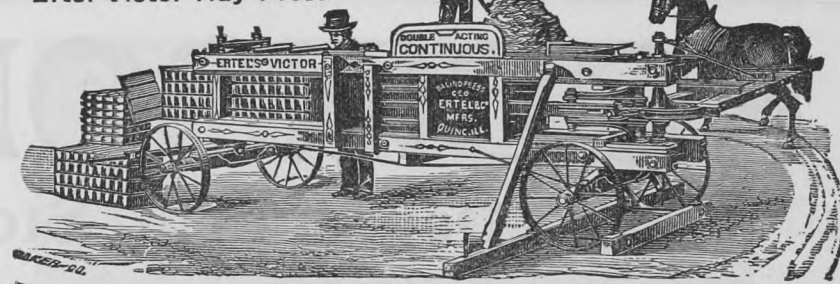
5. Testing Milk and Its Products (Woll and Farrington) 230 pages, \$1.00.

Treats of sampling milk and cream;

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These saws are elliptic ground thin back, requiring less set than any saws now made, perfect taper from tooth to back.

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composite samples; the Babcock test; testing cream; uses of lactometer; calculating dividends of factories and computing percentages of butter fat, etc.

IV. DOMESTIC ECONOMY.

The reading circles would not be complete without a course for the farmers' wives and daughters. There is no reason why they should not have a circle as well as the other side of the house. We propose the following:—

1. The House Comfortable (Ormsbee) 230 pages, \$1.25.

Treats of the ordinary conveniences of the house as well as the finer and more costly luxuries. Every part from garret to cellar receives proper attention. House furnishing, including decoration, is fully discussed.

2. Disposal of Household Wastes (Gerhard) 195 pages, 75c.

A discussion of the best methods of disposing of the sewage of farm houses, country houses, suburban dwellings, village houses, hospitals, etc. Also the removal and disposal of garbage, ashes, and other solid house refuse.

3. Chemistry of Cookery (Williams) 325 pages, \$1.75.

Explains the principles of cooking rather than to describe the preparation of various dishes; discusses roasting and broiling, frying, stewing; meat, bread and the cooking of vegetables. The preparation of certain dishes is used to illustrate certain principles.

4. Boston Cook Book (Mrs. Lincoln) \$2.00.

Is an excellent practical guide for the preparation of the ordinary food products as well as fancy dishes, the reason why being fully explained in all cases, which places this book far ahead of the ordinary cook book.

5. What to Eat and How to Serve It (Herrick) 300 pages, \$1.25.

Discusses largely the preparation of table luxuries as well as that of the more staple foods. Table service and the etiquette of entertaining receive proper attention.

6. Gardening for Pleasure (Henderson) 250 pages, \$2.00.

Soils, lawns, appliances and plants for out of door and in door ornamental gardening; the cultivation of the best varieties of fruits and vegetables; designed to aid those who wish to grow fruits and vegetables and flowers for home use.

Any one of these courses can be taken up, and if there is time for it, a second one can be tried. Get your friends together and talk this over. Choose the course most agreeable to all. The Farmer will gladly supply the address of the publishers of these books to any one wanting them, but we can probably purchase the books at a cheaper rate than the members of a circle can, and will be pleased to furnish the books at actual cost. The prices given are the usual retail ones, and ordered in quantity the circles should be able to get them at somewhat lower rates.

The correspondence columns of The Farmer will be placed at the disposal of the readers of any of these circles for questions on difficult points, and explanations will be given to the best of our ability.

Further information about any of the courses will be gladly furnished on application.

The Farmers Institutes.

After the toils and anxieties which the untoward harvest season has brought to every farmer in this country we are now in sight of a little breathing time, part of which can be turned to no more profitable account than a study of the conditions under which we shall enter on a new season's work. Each man must study the case as it affects his individual circum-

stances, and lay his plans for the work of another year. But the man who, in addition to the best fruit of his own thinking can also avail himself of the matured thought of others, similarly circumstanced, is in the very best position both for getting and doing good by free and full discussion of the methods himself and his neighbors propose to follow. No fitter or more favorable opportunity can be found for such discussion than our own farmers' institutes provide for us. At meetings, where professional men of established reputation discourse on the structure and diseases of animals and similar topics, all that the farmer can do is to ask questions along the line of the speaker's lecture. But on the question of land culture, cropping, and rotations, the very best of our light must come from the experience and practical forecast of the farmers themselves. Early in the new year is the time most convenient and most appropriate to such discussions. Let every farmer in the country make up his mind that he will take an active part in such discussions, and induce his more careless neighbors to be present. Situated as we are, only a few such meetings can be held at any place in one year, but when the opportunity does come, it should not be missed. The men who are in or near the front line of successful farmers are generally found at every meeting, to hear, to suggest and to discuss the ideas brought forward. They both get and do good. "Go thou and do likewise."

The Kansas State Board of Agriculture has issued a valuable report on "Pork Production, being a discussion of modern swine rearing and economical and profitable pork production. F. D. Coburn, Topeka, Kansas, is the secretary of the State Board.

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Men's \$1.50 Ribbed Underwear for \$1.00 per suit.

Cotton Blankets for 60c. per pair.

5c. Flannellette for 3c. per yard.

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For anything in the lines we carry a visit to our store will result in profit to you.

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Shepherd Life on the Scottish Borders.

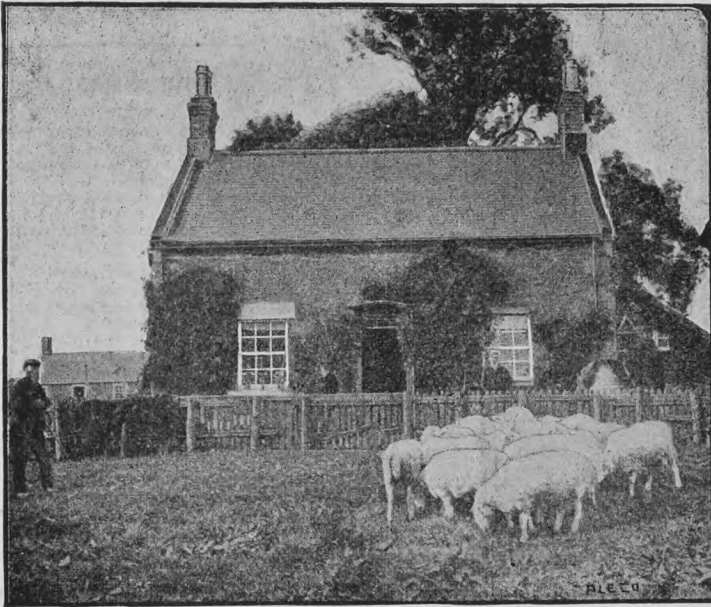
In a recent issue of the Clay-Robinson Live Stock Report, Mr. John Clay, of that firm, gives interesting recollections of the manner of life in the Lammermoor and Cheviot Hills, where, on the large sheep

farm, Jamie had a cottage and garden free, and for this privilege used to be present and superintend to the best of his ability every important move in the management of the live stock on the farm, whether it was lambing or weaning, ewe milking or drafting.

"One of the boys, now a middle-aged man, tells me the story of his closing days

Jamie told him to drive a stake at one point and another six feet away. "Laddie," he said, "put my heid there. I want to be beside Tib. She was a grand wife, though a bit short in the temper." He was gathered shortly after to his fathers, but in the district his memory is yet green. He was a grand example of the servant, whose integrity was never questioned nor honor assailed.

"Away across the ocean is the odor of peat 'reek.' The remembrance of it takes me back to simple scenes on the tufted hillside. The smoke is curling upward from a shepherd's cottage, a whiff of wind blowing the aroma toward you. The dogs have spied you from afar and soon send up a note of warning. The 'herd' is there to meet you at his door, or maybe you see him coming back from his daily rounds and wait his return. You enter the house, have the best seat placed at your disposal, and then the 'crack' begins. It is redolent of sheep, of weather and wool, and then you repeat your gossip and in return hear the shepherd's clavers. They are great news mongers, and the information rather oozes out than runs like a stream, but it comes all the same. Taking them all in all, I have never met a more intelligent class. Pawky, close in their dealings, wonderfully superstitious, they have a fine sense of honor and justice, and their judgment is excellent. Much of this has come from close study of men and nature, and those deeper thoughts which come from a knowledge of the Bible and Bunyan. The solitude of their lives and occupation has intensified the reserve, which after all is but skin deep. Once within their gates they seem to lose the solemnity of the 'hill,' where they are on guard and at work more mentally than physically, and they throw open their doors and display a simple hospitality which many a time is as courtly as from a prince's hand. Even the dogs lose their identity in the house, for does not 'Cheviot' or 'Yarrow' curl up under the table or even squeeze himself in below your chair? Many a gentle kick in



A Lammermoor Cottage.

farms tenanted by his father, he spent most of his youth. The "herd," as he is called for short, is a great man in the management of the large sheep farms of those ranges of hills, and Mr. Clay depicts their manner of life with loving zest.

"Near half a century ago my father rented the farm of 'Wedderlie,' some 3,000 acres in extent. It lies on the first rise of the Lammermoors on their southern slope, the lower lands being devoted to the plough, gradually rising till heather and bent hold undisputed sway. Leicester-Cheviots, or half-breds as they are called, graze the lower lands, feeding on turnips, hay, and grain part of the winter, while Blackfaces find a generous subsistence all of the year on the high lands. Here in years gone by, long before the writer had smelt the sea air of the German Ocean, lived Jamie Bruce, a shepherd by profession and nature. He had retired from active life when I first saw him and lived in a cottage near the farm buildings. He had been more or less thrifty, and, as long as he was able to, dealt a bit in cows or sheep, leased for years a grass park annually, with some meadow land attached, and there he spent the evening of his days and, while like the last minstrel, he outlived his usefulness physically, his mind was bright to the end.

"As he was the first of the many 'herds' I have known, he still is pictured as a sort of ideal type of a wonderful class of men. Even when past three score years he was tall and athletic, built on generous proportions with sinews of iron. The face was strong, deep lines crossing it, and the eye observant; cautious and conservative in speech and manner, pity the man who tried to jest with 'Jamie.' When occasion required he could be as 'gleg' in the tongue as any son of Erin. Sternly honest, more especially to his employer, there was a streak of pawkiness in his nature. It runs through shepherd life. Master has it as well as man, like their great prototype, Jacob, but the pastoralists of the Scottish hills never go so near the border line of truth as he did. For thirty years or thereabouts after our possession of the

of life. Jamie was beginning to feel age creeping on, his back was bent, his legs giving way, and to outsiders the days of dissolution were approaching. It was the spring of the year, and as was his practice he was watching and assisting the advent of a crop of calves. One day he suddenly turned to his boy companion and addressed him thus: "Callant, when the red quey haz calved you'll yoke the pownie



A Cheviot Shepherd and his Dogs.

to the phaeton and take me down to the kirk-yard." Next day he was found sharpening a couple of stakes. When the above animal had added its quota to the stock, Jamie and his little friend found their way to the church-yard. There stood the church, long since out of use, ivy growing over the sloping stone roof, a fit centre-piece for the dead that surround it. Leading the boy to a plot in one corner,

younger days has taught him where to find a safe place.

"The shepherd's work is easy, much of it just fair exercise. They have to look the hill twice a day, morning and evening. In the days before fences came so generally into vogue they had to 'hirsle' their sheep, that is, train them to keep within certain boundaries. To-day there are still sheep rakes where fences are unknown

and the flock has to be carefully watched. Lambing time is the busy season, and at this time of the year our gentle shepherd often shows his temper while he has to exercise his patience. Shearing time is the season of rejoicing, and with it comes comparative rest, for the sheep that might get 'awalt,' or turned on their backs and

sified by the training and heredity of many generations, has made them almost perfect in adaptation to their life's duties. They love the work, and no one can forget their expectant look for every movement of the shepherd and his flock. The eye is almost human in its intensity and intelligence, and their affection, not only

he has a house and big garden rent free, with pasture for two cows. Altogether, he is the most intelligent, reliable and best paid of all hired men in rural districts, and it is recorded that exactly a century ago thirteen dead shepherds were collected in one day into the little church at Westruther, Mr. Clay's parish, the victims of a blizzard that caused not only great loss of life among the faithful "herds," but severe loss to the owners of the buried sheep.



Blackface Rams at Wedderlie.

be unable to rise again from weight of wool, have no further troubles in this way, and the shepherd's anxieties close for a while.

"One of the great characteristics of this class of men is their love of locality. They scarcely ever move twenty-five miles from the scene of their birth. Their attachments are strong. They may make a change, but they seldom leave the district, and often return to their old stamping ground. On Lammermoor the third generation occupies the same place on the above farm and the other shepherd on the place has been, with a short interval of two or three years, over forty years in his present position, while in the Cheviots I have known many a case of a 'herd' spending all his life on the same farm. There is a grand system of reciprocity betwixt employer and employee, only the latter is very often the master of the situation. Knowledge is power, and those men are such adepts in their business, so trained from father to son, that there is not, so to speak, a trick in the trade they do not know. We will admit that in many cases they are lazy, but it is second nature to them, the management of sheep. For generations their thoughts have been on this subject and it has intensified and become deeply engraved on their minds. They are always on hand when the hour of need comes. Wat Stobie, my grandfather's old shepherd, was one of the laziest of mortals. He even used to ease his conscience some days by looking from a high spot (some folks said the top of his chimney) over his hirsels, but he was a grand manager, a model 'herd'. His brains did what many a man tried to do with his feet and hands. He was generally at the right place at the right time, and he always had the best kind of a collie to assist in his work."

The half-tone illustration shows two fine specimens of the sheep dog by the side of their owner. No Scotch shepherd can get along without these intelligent and faithful servants. They really move the whole machinery of a sheep farm. Nothing in nature, that I have seen, can match their wonderful sagacity. Instinct, inten-

tion for the shepherd but for his family, is wonderfully strong and lasting. Lately a few of them have been adopted as pets by the Queen and higher classes. But idleness and luxury soon enervate such specimens, however beautiful, and the only place where a collie can be seen at his best is on his native heath, obeying every

King Wheat.

You may tell of your armored cruisers,
And your great ships of the line;
And swift and slow may steamers go
Across the billowy brine.
Like thunder may the cannon boom
To greet their flags unfurled,
And for an hour they may have power
To rule the frightened world.

From ocean shore to ocean shore
Lie lines of gleaming steel,
And night or day we hear alway
The ring of rushing wheel;
Though buffalo have left the plain,
And Indian tents are furled,
Nor steam nor hand at wealth's command
Can rule the busy world.

But where the hillside rises fair
In terraces of green,
And on the plain where wind and rain
Sweep fields of golden sheen,
Where sturdy yellow stalks arise
With bannered heads unfurled,
Here you may greet the great King Wheat—
The ruler of the world.

O, hills may shake and vales resound
Beneath the flying ear,
And driven by steam and winds a-beam
Our ships ride fast and far;
Cities may crumble 'neath the guns,
Which guard our flag unfurled,
Yet all shall greet—at last—King Wheat,
For hunger rules the world.
—Youth's Companion.

It is now 40 years since the first Deering harvester was put upon the market. In 1874 Deering and Wood led with the first automatic binder. These were wire



William Whitelaw. Matthew Craig, Jr. William Anderson.
(Third in succession as shepherd.) (Assistant foreman.) (Forty years shepherd.)
John Clay.
(Tenant of Wedderlie.)
Matthew Craig.
(Nearly fifty years foreman.)

motion of his master, often when quite out of hearing of his voice. His affection and faithfulness are fully reciprocated, and no money could induce the "herd" to part with his faithful helper and friend.

The usual practice in hiring a shepherd is to allow him to pasture a "pack" of ewes, over 50 in all, along with his master's flock, and, besides money payments,

binders. In 1878 Deering came out with the Appleby twine binder and all others gradually followed suit. It is no injustice to other makers to say that the Deering machines were made of a quality in material that has never since been surpassed, and there have been Deering machines in Manitoba that did good work for close on twenty years.



Prize Competition for Our Lady Readers.

The Nor'-West Farmer will offer monthly, for the present, a leatherette work-box, with handsome picture in colors on lid, and stationary mirror on inside, silkline lining, containing five pieces handy for sewing, to the competitor who sends us by the 20th of each month the most instructive letter on any topic suitable for our "Household" readers. Competitors must be females, and on the top left-hand corner of the envelope containing the letters must be written the word "Household." The prize will not be awarded to the same person twice, and all manuscript sent in to be the publisher's property, whether awarded a prize or not. Address, The Nor'-West Farmer, Box 1310, Winnipeg, Man.

A Farmer's Life.

A farmer's life is a happy one,
Though he toils from day to day,
Saving and frequently denying himself,
In his efforts to make things pay.
The city bred, with their borrowed airs,
May turn up a dainty nose,
And scornfully stare at the thrifty farmer
And jeer at his old-fashioned clothes.
But they only expose their ignorance,
While it makes no difference to him;
For his mind is bent on something better
Than "Dame Fashion" and the city's din.
He is thinking of wife and children,
As he works from dawn till night;
And the thought of his independence
Fills his eyes with triumphant light.
Oh, a farmer's life is independent,
Though he toils from sun to sun!
But there's rest, peace and contentment,
When the weary race is run.

While Shepherds Watched.

A Christmas Story, by Adeline Sergeant.

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A tall, spare, dark-eyed young man, with a violin-case in his hand, came up the narrow stairs three steps at once, as though he were anxious to reach the little attic-room which was his destination. There was a lamp in the hall below, but no light on the stairs or landings save the dim gleam which came through a sky-light in the roof; and at six o'clock in the evening of the 24th of December, it is needless to remark that the top storey was enveloped in total darkness. But Guy Fairfax seemed to know his way by instinct, and did not pause until he reached the scratched and shabby-looking door which formed the entrance to his abode. There he stepped short, waited, and listened for a moment, arrested by a sound that issued from the room.

It was the sound of a violin, faintly played, as though the instrument itself were small and the hand of the player weak. Presently there arose also a sweet little thread of a childish voice, singing to the tune picked out on the violin, the words of a well-known Christmas hymn:

"While shepherds watched their flocks by night,
All seated on the ground."

Guy's face contracted a little as if with pain; then he smoothed it resolutely,

called up a smile, and opened the attic door.

It was a miserably bare room, not very clean nor very tidy, and the small fire that burned in the rusty grate did not avail to warm the atmosphere. On the bed, with an old fur cloak tucked round him for warmth, a little boy was curled up, his hands holding the tiny fiddle to the notes of which Guy had been listening. But he put it down at once and held out his hands with a little crow of delight when Guy came in.

"Daddy! Daddy! are you back so quick? I thought you wasn't coming till ever so long."

It was a sweet little voice, a sweet little face; but the lad's body was very frail and weak, and the dark eyes looked pathetically large for the delicate little face. It was with a sort of passionate yearning that Guy Fairfax pressed his child to his breast for a moment and then looked at him with a mournful foreboding which rendered his voice less cheerful than he meant it to be.

"I've run home for half an hour, Tony, to see that my boy is warm and comfortable," said the young man, folding the child close to him as he spoke.

"Oh, yes, I'm quite comfy," said Tony, contentedly. "I put on your old cloak and pretended I was a bear; then I was a little choir-boy singing carols in the street—Christmas carols, you know, daddy, be-



cause Christmas is to-morrow, and it was to-night that the shepherds was watching their flocks—all seated on the ground—"

His voice passed almost unconsciously from speech to song. Indeed, although Tony was only six years old, singing was as natural to him as speech. He came of a musical race; his father was a musician, first by choice, then by necessity, and his mother, who died when he was only two years old, had been a professional singer, belonging to a family who had lived half their lives upon the operatic stage. Tony inherited her tastes, just as he inherited her golden hair, but he had his father's brow and his father's eyes.

"You like carols, Tony!"

"At Christmas time, daddy. Will the singers come down this street to-night, do you think?"

"Perhaps so. There used to be plenty of them when I was a boy."

"You lived here, when you were a little boy like me, didn't you, daddy?"

"Not here in the town, Tony. A little way outside—at the big house I've told you about before."

Tony regarded his father with baby seriousness. "Won't you take me to see it while we're here? Or is the comp'ny going away to-morrow?"

Fairfax belonged to a travelling operatic company, and could not afford to do otherwise than the other members of the troupe; but he would have given a good deal to find himself in any other place

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rather than the big, northern manufacturing town, where, unfortunately, his family had been well known for many generations. He had broken with his relations long ago—but—well, it was trying to find himself so near the dear old Grange where his father was still living, two miles outside the town, and not be able to go near him nor even let him know that his son and grandson were so near.

"I can't take you to see it," he said, in a low voice to the little son. "There—there wouldn't be time."

He was ashamed of the subterfuge as he looked into Tony's innocent eyes; but Tony was only half attending after all.

"And Santa Claus?" he said. "Will he come down the chimney to give me things as he did you, when you were a little boy?"

"Really, Tony, we must look after your English. Chimney indeed! You know better than that."

"It don't matter," said Tony, fearlessly. "Will he come down it, that's what I want to know?"

"Not down attic-chimneys, I'm afraid," said the father, with a sigh.

"Oh—h!—But in at the door, maybe? Perhaps his sack would be too heavy for the chim—ney. He'll come all the way up the stairs, bump, bump, bumpity-bump, won't he?—and I shall stop awake and hear him."

"Better not," said Guy, rather sadly. "Santa Claus has forgotten us this year, mannie: he comes only to rich people."

"That's a shame," said Tony. "We aren't rich people, are we daddy?"

"Certainly not," answered the young man, thinking of the guinea a week which he was accustomed to receive on treasury day. "Not precisely rich, Tony; but not paupers—yet."

The bitter accent in his voice was caused by a vivid remembrance of some words that the angry old father had once addressed to him. "You need not darken my door again, sir; and when you and your wife are paupers, don't think that

TWINS.

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WHITE STAR

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THE STANDARD FOR EVERY HOME.

you will get money out of me." The word 'paupers' always recalled the bitterness of that moment to his mind.

"What's paupers?" said Tony. Then, in an abstracted tone, "I suppose Santa Claus always came to the big house where you lived."

"I suppose he did."

"And does he come still?"

"If there were any children there, I daresay he would."

"Oh," said Tony, with a very solemn face. Then he said no more, but sat motionless, looking thoughtfully at the opposite wall, while his father rose from the bed and began to busy himself about various household matters, which might have seemed to an observer almost pathetic when done by the clumsy fingers of a man. Not that Guy's fingers were clumsy; they had all the delicacy of the born musician, and the gentleness of a woman; and it came quite naturally to him to build up the fire, hang Tony's flannel night-gown before it, warm some bread and milk for the child, and finally make and drink a cup of strong tea before he went back to the orchestra.

"Good-night, Tony. Go to bed soon, there's a good boy. Shall I unfasten your clothes?"

"No, thank you, daddy: I've not a baby," said Tony, with dignity, and Guy went away laughing at this manifestation of infantile pride. He had little to laugh at, and it was a good thing for him that Tony's smiles and frowns and baby wiles, as well as the child's innate genius for music, kept his heart from growing hard. The amused light was still in his eyes when he reached the theatre, but it would soon have died away had he known what Tony was doing while he was gone.

"It's a dreat pity," Tony soliloquized as he ate his bread and milk, when his father's steps had died away, "it's a dreat pity that Santa Claus does not come to poor little boys as well as rich ones. I s'pose he'll never think of coming here. But, if I lived in the house where daddy used to live, he'd come, because daddy said if there were any children there—oh, I wish I could go to daddy's old house and see Santa Claus for my own self! What a pity that daddy does not live there now!"

He put away his empty bowl in a little wooden cupboard, and came slowly back to the fire. Then he yawned, and thought the room looked very lonely, and wondered what he could do to amuse himself. He was a self-reliant little lad, not often in want of occupation, but just now it seemed to him as though something had gone wrong with the world. He was vaguely dissatisfied, and knew not why.

Then a sudden idea occurred to him—one that sent the blood to his cheeks and the sparkle to his eyes. "Tony's ideas" were sometimes a trouble to his father. They were always original, but apt to be impracticable, and even dangerous. The idea that had come to him now was that he should go to the house where his father had lived, and ask to be allowed to wait for Santa Claus when he came down the chimney that night.

"It would be lovely," said Tony to himself, "I shouldn't be no trouble to nobody, and very likely I should be home again before daddy got back from the theatre. I should run all the way, and I should take my fiddle and play 'While shepherds watched,' and sing the words; and then the people of the house would say, 'Oh, there's the waits,' and they would open the front door wide and let me in."

The idea took complete possession of his little soul. As it happened, he knew the name of the house where his father had once lived, and had a general idea of

its locality. It was two miles from the big town, but there was an omnibus which would take him almost all the way. And Tony, although kept as closely as possible to his father's side, had a good deal of experience concerning trams, omnibuses, trains, and other modes of transit; and he was not at all dismayed at the notion of making his way to a strange part of the town. He proceeded in haste to make preparations for his expedition. First, he found a piece of paper and scrawled upon it in enormous sprawling letters: "Plese, daddy, I have gone to your old house to find Santerklawse, and I shall tell him to bring things to poor likkle boys as well as ricche ones.—Tony." Tony's spelling was not his strong point. Then he put on his cap and his little overcoat, rather thin and very shabby, took his violin under his arm, and so set forth.

The sky was overcast, and the wind cold; but out in the streets the lamps were lighted, the shop windows were resplendent with holly, and a crowd of belated shoppers hustled each other on the pavements; so that Tony, in his delight at this novel and beautiful scene, did not feel the cold and knew not the meaning of fatigue. At first he even forgot that he meant to go into a tram and go to Stoneley, the suburb in which his father's home as a child was situated. The name of the house was Carston—as Tony knew; and in his ignorance of all difficulties, he intended to go by tram-car to Stoneley, and then ask the first passer-by his way to Carston. That the place might be utterly changed from the time when his father was a boy never entered Tony's head.

However, the innocent and ignorant sometimes seem guided towards right ways, right things, right people, in ways we do not know. Tony looked up straight into the face of the omnibus conductor at a street corner where several omnibuses were waiting, and said, "Are you going to Stoneley, please?"

And the man looked down at him kindly, and said:

"Ay, that I be. Do you want to go to Stoneley, little master?"

"Yes," said Tony, promptly scrambling up the steps, "and I want to go to a house at Stoneley—a house called Carston. Do you know where it is?"

"Why, yes," said the friendly conductor, in rather a doubtful voice. "I know Carston well enough, and we go almost past the gates, but what might you be wanting at Carston, I should like to know?"

"It's where my daddy used to live," said Tony, settling himself into his seat.

"Oh, I see," said the man, feeling more satisfied. He supposed the boy must be the son of some coachman or gardener who lived at Carston; and Tony had so much self-possession and confidence that no more questions seemed necessary.

More passengers got in, the conductor shouted, the driver cracked his whip, and the omnibus moved on. It seemed a long time to Tony before it stopped to put him down in a dark road, where the conductor pointed encouragingly to a white gate at the end of a little lane, and told him that that was the way to Carston. "There'll be a bus back to town every quarter of an hour," he said; "but maybe you won't want one? You're going to spend Christmas with your father. I reckon?"

"Oh, yes," said Tony, not at all suspecting the drift of the question. And then the omnibus rolled away, leaving him all alone in the dark, with an unaccustomed sensation of fear and—an unusual thing for him—a strong disposition to cry.

But he mastered the weakness, and, gripping the violin faster, he turned towards the white gate at the end of the lane. It was unfastened, and when he had passed through it he found himself on

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a gravelled walk, winding whitely between trees and plantations, towards a large, dark-looking mansion, which Tony divined to be Carston, his father's old home.

He followed the path until he came to the garden, and then he lost himself a little, but by and by he emerged from the shadows, and found that he was fronting a wide flight of steps which led up to the terrace in front of the dining-room and drawing-room windows. Tony nodded quite joyfully when he saw the terrace and the steps. His father had told him about them many a time. He mounted them slowly and carefully, then, standing on the terrace, he looked about him a little while and then decided that it was time for him to begin to play. He felt rather cold now that he was not moving, and a snowflake or two melted upon his nose, and made him uncomfortable; nevertheless, it was with great resolution that he drew his bow across the strings of the fiddle, and began his favorite tune,—

"While shepherds watched their flocks by night,

All seated on the ground."

"What's that caterwauling in the grounds, Norris?" said the master of the house to the butler, in his crustiest tones. He was at dinner, and the notes of a violin fell strangely upon his ear. "Did I not tell you that I would have no parties of carol-singers this year? They only trample down the plants and destroy the young trees in the plantation. Go out and put a stop to that noise directly."

Norris went out with rather a grave face. It was a troubled one when he returned.

"It's not the carol-singers at all, sir. It's—it's only a little boy."

"Send him away at once, then."

"If you please, sir, he says he wishes to speak to you. I—I think he's a gentleman's son, sir."

"What if he is? He can have no business here. Send him off. Some begging trick, I daresay."

But as the General—for that was the rank of the master of Carston—spoke, the music waxed louder and louder, and a sweet child's voice rang out like a bird's. To the vast surprise of the master and servant alike, the door of the dining-room was pushed open, and there in the hall stood a child with shining hair and big brown eyes, playing and singing, as he had done at first:—

"While shepherds watched their flocks by night,

All seated on the ground."

The General's white moustache bristled fiercely, and his voice was harsh and rasping when he spoke.

"Boy—you there! Stop that noise!"

Tony desisted, but turned a look of angelic reproach upon the speaker. "Don't you like it?" he said. "It's my greatest favorite. And you must know it quite well, because daddy says he used to sing it to you when he was a little boy."

"When he—your father—what do you mean, child?"

"I ain't a child," said Tony, with dignity. "I'm a boy. It's quite a long time since I was a child."

"What's your name?" said the General, softening and smiling in spite of himself. But the answer banished all smile from his face.

"Anthony Liscard Fairfax," said Tony, triumphantly. "Isn't it a beautiful name? It's my grandfather's name, daddy says, but I haven't never seen him in all my life." And his innocent, trustful eyes looked straight into the face of the very man who was his grandfather.

Norris gasped. He expected an explosion of anger: he almost feared violence.

But for a minute or two the General stood perfectly silent. Then he said to the man, "You can go."

"Shall I go, too?" said Tony.

"No. Stand where you are. Now, tell me who told you to come here to-night?"

"Nobody told me. I thought it for myself."

"Do you see these grapes and sweets?" persisted the General. "You shall have as many of them as you like if you will let me know who suggested—who put it into your head—to come."

Tony's face grew red. He saw that he was not believed. But he answered gallantly:

"I told you—I thought it for myself. Nobody said one word about coming, and I thought of it only to-night when daddy had gone to the theatre. He's told me lots of things about this house, and how boo'ful it was."

"So you wanted to see it for yourself?"

"Yes, I wanted to see it, but that wasn't all. Santa Claus comes to this house, don't he?"

Tony pressed eagerly up to the General, who seemed not to know how to answer him.

"I can't say. When the children were small—perhaps—"

A vision came to him of himself and his wife, stealing from cot to cot to fill small stockings with toys and sweets in days long passed away. He could not finish his sentence.

"I know!" cried Tony. "Santa Claus always came here when daddy was a little boy; and when I asked him why he never came to me, daddy said that he only came to rich children and not to poor little boys like me."

"Are you poor?" said the General, hastily.

"We're not rich," replied Tony, quoting his father, "but we ain't paupers yet. Daddy says so. Who is paupers? I wanted daddy to tell me, but he had to go to the theatre—"

"So he goes and amuses himself, and leaves you with nobody to care for you?"

"It ain't very amusing," said Tony. "It makes him awful tired to play such silly tunes every night in the or—kistra. But he has to do it, or else there wouldn't be no bread and milk for me, nor no baccy for daddy."

"Where is your mother?" said the General.

The child's face grew grave. "God took her away," he answered, and the General suddenly felt that his old hatred of that singing woman who had beguiled his son into making her his wife was small-minded and despicable. But another notion made him frown.

"So you came here to see what you could get? You wanted Santa Claus's presents?"

"Oh, no, I didn't. I only thought I'd like to come—'cause daddy says Santa Claus always came here at Christmas time, and it would be awful nice to see him; but I don't want anythink myself. I just want to tell him that there are heaps of little boys much poorer than me, and that if he would go to the poor children it would be much better than going to the rich ones, don't you think so?"

"Well—sometimes," said the General.

"I thought, if you'd let me, I would stop here till quite, quite late," said Tony, confidentially. "I'd wait about till he came, and then I'd speak to him about the poor little boys. Then I'd go home to daddy. But may I stop here, please, till Santa Claus has been?"

To his surprise, the old gentleman with the white moustache stooped down and took him into his arms. "My dear little boy," he said, "you may stop till Santa

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as a tonic, appetizer, blood purifier and aid to thorough digestion for cows, sheep and horses when they are put on dry fodder in the Fall. It assists the organs

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ROBERT KERR,
Traffic Manager,
Winnipeg.

Claus comes—certainly ; and you may stop forever, if you like."

* * * * *

When Guy Fairfax, half distracted by the note which he found on his table, arrived, panting with haste, at Carston that night, he was shown at once into the dining-room, where the General sat in his arm-chair with a child's figure gently cradled on his knee. Tony was fast asleep, and the General would not move to disturb him. He only looked at his son for a moment, and then at the sleeping child.

"Forgive me, Guy," he said at last. "You—and this boy—are all that remain to me. Let him stay—and stay yourself, too, and cheer the few last years of my life. I was wrong—I know I was wrong, but you must come back to me."

And when Tony woke next morning, in a soft white bed and a cosy room, such as he had never seen before, he was a little bit grieved to find that Santa Claus had filled a stocking for him while he had been fast asleep. But he was quite consoled when Guy told him that the old gentleman with the white hair and moustache, who must henceforth be called grandad, was the best Santa Claus that he had ever seen, and that Tony might go to him after breakfast and sit on his knee while he sang how shepherds "watched their flocks by night" as the Christ Child came

with gifts of peace and joy and good will to men.

A Lovely Family.

You are the baddest boy
That ever I did see,
To talk in such a horrid way
'Bout my dear family.

To say that Dinah Black
Hasn't got a feature,
When everybody knows that she
Is such a faithful creature ;

And takes such splendid care
Of Mat and Fan and Lu
When they have whooping cough and things
And lets me sleep right through.

We don't love folks for looks ;
And Mat's a beauty bright—
You know she is, and Fanny, too,
And Lu's my heart's delight.

Topsy's a scatter-brain,
But cute as she can be ;
And take them all in all they are
A lovely family.

—Our Little Folks' Magazine.

Children's nightgowns should always be made of all-wool materials, as this prevents their taking a chill when heated with sleep. Light and porous bed-clothes are the best kind to have. They ought to be warm, but not heavy. Thick counterpanes check perspiration, and should never find a place on children's beds.

A Home Made Wash Stand.

A very satisfactory home-made washstand can be made out of two packing boxes. Secure a rather long one for the bottom, and set upon one end of it a smaller one. Both boxes should be put up with their hollow sides outwards. The lowest one makes a capital receptacle for boots and the other for holding various things. The exposed sides of the boxes can be stained a dark mahogany or some other color. Nice curtains of cretonne can be put on them. A fringed toilet cover put on each top. The basin, soap dish, etc., should be placed on the upper box, while the jug can be put in the lower one. A nice splash on the wall will finish off the stand nicely, and a sponge basket and brush bag fastened at one side of the splash will make everything complete. Any handy boy can make a washstand of this kind.

A lump of sugar saturated with lemon juice, and eaten slowly, will cure hiccoughs.

A box of bricks will afford great amusement to a child on a rainy day. There is an excitement in building up houses and knocking them down again.

A NEW ENTERPRISE

WEB call the attention of our many readers to the commendable method employed by the Co-Operative Knitting Company of this City, of employing people at their homes on the co-operative plan, whereby the interests of the company and their employees at once become mutual. This method has been successfully employed in the manufacture of various kinds of goods in many parts of Europe, and we cannot see why the same co-operative method should not be equally successful in this country. Therefore we wish to congratulate the promoters of this company in the introduction of this method to the people of this country, thus enabling them to secure profitable employment at home. By this co-operative plan those wanting employment get a \$20 machine and outfit free. The company for its part furnishes the knitters the necessary yarn, patterns, instructions FREE, and money to pay

them for their work, superintends the business and takes for its part the profits derived from the products of the labor of the knitters. All the workers naturally have the welfare and interest of the company at heart and bend their energies to assure it of success, as their interests and that of the company are mutual. The workers cannot hope for the company to succeed without the proper effort and hearty co-operation on their part, as they are virtually a part of the company. Thus it will be seen that the company employing people at their homes, doing business on the co-operative plan, will necessarily succeed, whereas other companies doing business by the old method cannot hope to successfully compete with the co-operative plan. We feel it of importance to many of our readers that they should write for a membership and avail themselves of the opportunity of taking employment at home with this Co-operative Company.

WORK FOR MANY MORE FAMILIES

Man, Woman, or Child can operate our Automatic Machine and Make Good Wages the year round. We furnish Machine Free and ship all Yarns, Etc., prepaid to our workers, and pay cash for the knitting as sent in.

Sample Wholesale Order

Canadian Pacific Railway Company's Telegraph

TERMS AND CONDITIONS.
All orders must be accompanied by the cash and conditions printed on their back from No. 1, which must be returned to the sender by the following date: HOLLER FINGER, Sept. 1, Toronto, Ont.
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Co-operation Knitting Machine Co.,
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Ship hundred dozen baled immediately balance monthly according to order, railroad might pay shortage last shipment.

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MAKES 10,000 STITCHES A MINUTE.
Knits a pair in 20 minutes.
Work is easily learned from Instruction Guide and Machine is simple to operate.

Many Families are Being Employed

Sample Testimonials

Perth, Sept. 24th, 1897.
Co-Operative Knitting Co.

Gentlemen,—To-day I forward my sample socks. I was never near a knitting machine before. Your instructions are nicely worded and plain and there is no difficulty in understanding the work. I thank you for engaging me as a worker, and will do the best I can to get other members, as I think it is a very great benefit for families to earn money at home. The Co-Operative plan of sending work out to homes is deserving of the attention of every family who can spare time and make money in their idle moments. Trusting to receive my future supplies by return, I remain, yours respectfully,

R. E. McNAUGHTON.

GENTLEMEN, Perth, Oct. 18th, 1898.

Dear Sirs,—It has now been a little over a year since I engaged with you knitting your various kinds of goods, and I am pleased to say that your treatment has been satisfactory to me and the machine is all that anyone could wish. It has never gotten out of order and knits like a charm. I am able to knit Bicycle Hose or a Pair of Socks in twenty to thirty minutes. I have found the machine and your dealings exactly as represented in your circular. Have received the last 18 pounds of yarn and will knit it up at once and return by express as usual. Yours truly,

R. E. McNAUGHTON.

And many others.

WRITE at once if you want to become a member with us, enclosing 3 cent stamp and naming references. References we must require, as we entrust our workers with large quantities of yarn, etc. Address

THE CO-OPERATIVE KNITTING COMPANY,

C. O. HUNTER, Gen'l Mgr., 15 Leader Lane, TORONTO.

Boys Versus Mules.

One day as I was strolling out
I heard a very angry shout,
And then the sound of blows and cries
Impelled me quick to use my eyes.

Beside a house an angry dad
Was walloping his little lad.
"Good-day, my friend!" I said, "I see
King Solomon and you agree."

"Why, yes," he stammered, growing mild,
"Who spares the rod will spoil the child,
And so I have to whip my boy,
Although it's what I don't enjoy."

"But, come in, stranger! Maybe you
Like looking at a farm," "I do,"
I gladly said. "Walk in," he cried,
"My dog won't bite; besides, he's tied."

He led me to his barnyard. "There!"
He proudly spoke, "gaze on that mare.
I raised her from a colt, and she
Would give her life for love of me."

He fondly stroked her handsome head.
"She is a beauty, sir!" I said.
"How did you train her? I suppose
Your whip has taught her all she knows."

"Lor' bless you! No!" he cried, amazed.
"By kindness, sir, that mare was raised.
Kindness and patience. Why, a horse
Is spoiled by being whipped, of course."

"And here's my cow. You cannot find
A beast so gentle, good and kind;
I raised her from a calf. I guess
She knows who pets her. Don't you, Bess?"

"How did you cure her youthful tricks?"
I asked, "Did clubbing stop her kicks?"
"Why, that would make her worse," he cried;
"Patience and kindness I applied."

"And there's my chickens, cats and dogs,
Mule, pigeons, oxen, sheep, and hogs—
I raised them all that way. You see
How at my call they come to me."

"Patience and kindness is the way
To make dumb animals obey,
And as for whipping them—O, no!
'Twould only make them vicious grow."

"You've proved a well-known fact," I smiled,
"But why not try it on your child?
He's more intelligent by far
Than pigs and mules and cattle are."

The farmer slowly scratched his head.
"Perhaps you're right," at last he said.
"No whippings ever did me good,
Although my father thought they would."

"In fact, they made me sly and bad,
And even hate my dear old dad."
"That's my experience," said I,
"I'm glad I met you. Now, good bye!"

"Well, thank you, stranger, for your call,
You've taught me something after all.
Kindness and patience are at least
As good for boys as for a beast."

—H. C. Dodge, in *Drover's Journal*.

Carving.

Very often the gentlemen of the house do not know enough about carving to do it as it ought to be done, and if he who carves chances to be away, and another member of the family must do it, possibly with strangers present, he has not the least idea of where to begin, or how to separate the parts, and the situation is decidedly unpleasant.

How much better to study by one's self the skilful way of dissecting a fowl or separating the nicest parts of the fish from the bone, of slicing ham or of dividing a joint, thus being able to be graceful and at ease in carving and serving. This may be learned at home, in the kitchen, by all members of the family large enough to serve, until each one shall have a knowledge of the position of bones, muscles, and joints, and of the different kinds of meat to be found in fish and flesh or fowl.

Anyone may hack at a joint until it is divided, but the skilful carver knows just where to insert the point of the knife and separate it without trouble, and no lacerating of the tender meat. Therefore, the first lesson in carving is to learn the positions of bones, muscles, and joints, how to separate them and how to divide or slice the meat for serving. The next is to know where certain kinds of meat are to be found. For example, the chicken has several varieties of meat about it,

and there are few people who are not especially fond of a particular part. The breast is white and dry, and if the chicken has been previously well dressed and trussed, is deep and full. The wings are white and moist, and are considered especially delicate. The legs and thighs are dark and well mixed with a jelly-like moisture of which many are fond, although the meat is coarser but richer than the wing. The skilful carver must know just where these lie, and how to separate them from the frame in order to serve guests acceptably. In the lobster and the turtle there is even greater variety. A dressing adds another kind. Another lesson to learn, and one of the most essential, is to carve and serve as faithfully, as gracefully, and as politely at the home table when there are only the family, as if guests of honor were present, and to try to do a little better each time than the time before. There is nothing more easily detected and more thoroughly despised by those whose good opinions are worth having than the manners one puts on and off as one does his Sunday coat, and if there are those entitled to courtesy and to whose pleasure we ought to love to contribute, they are those bound to us by home ties. In this case, as in most others, the greatest gain comes to him who serves rather than to those who are served.

In learning to carve it is well to commence with something easy. A joint of beef or a portion of ham offers less difficulty than some other things. In examination of a joint it will be seen that the filaments of flesh, or the "grain," all lie in one direction, like the threads of a skein. These should be cut across, that the slices may present a smooth, even appearance and be in better shape for masticating. Suppose the joint to be leg of mutton or veal. If, as is often done, the bones have been removed before cooking, the spaces filled with dressing, and the whole held by twine and skewers in the right shape, the task of the carver is less difficult, and he may at once begin to slice across the grain. The platter should be large and the thick part of the leg to the right of the carver. Insert the fork deeply at the top, turning the leg to a convenient angle. Cut several slices, moderately thick, through to the platter, if the bone has been removed; if not, to the bone. Then slip the knife under and work it carefully around the bone and separate the slices from the mass, laying them on the side of the platter. In this way cut enough for those at table, and several over, that should one desire a second slice it may seem awaiting him.

If this has been done rightly, the meat on the under side of the bone will remain intact and may be cut from after. With the fork and knife place an unbroken slice on a plate with a spoonful of the dressing. Do not serve too large a piece at first. A broken or ragged portion or a double quantity, drenched with gravy, will spoil a dinner for a delicate stomach. The carver should always ask if one would have a small portion of the fat served also.—The Home Queen.

For Over Fifty Years

MRS. WINSLOW'S SOOTHING SYRUP has been used for over fifty years by millions of mothers for their children while teething, with perfect success. It soothes the child, softens the gums, allays all pain, cures wind colic, and is the best remedy for Diarrhoea. It will relieve the poor little sufferer immediately. Sold by Druggists in every part of the world. Twenty-five cents a bottle. Be sure and ask for "Mrs. Winslow's Soothing Syrup," and take no other kind.

If you cannot get beef, mutton will answer.

You may choose between milk, water, coffee or tea. But there is no second choice for Scott's Emulsion.

It is Scott's Emulsion or nothing.

When you need the best cod-liver oil, the best hypophosphites, and the best glycerine, all combined in the best possible manner, you have only one choice.

It brings prompt results in all cases of wasting, or loss in weight.

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W. R. INMAN & CO., WINNIPEG.

The King of Candy Land.

Have you heard of the King of Candy Land ?
Well, listen while I sing ;
He has pages on every hand,
For he is a mighty king,
And thousands of children bend the knee
And bow to this ruler of high degree.

He has a smile, oh, like the sun,
And his face is crowned and bland ;
His bright eyes twinkle and glow with fun,
As the children kiss his hand ;
And everything toothsome, melting sweet,
He scatters freely before their feet.

But, woe ! for the children who follow him,
With loving praise and laughter,
For he is a monster, ugly and grim,
That they go running after ;
And when they get well into the chase,
He lifts his mask and shows his face.

And, oh, that is a grewsome sight,
For the followers of the king ;
The cheeks grow pale that once were bright,
And he woe instead of sing ;
And their teeth drop out and their eyes grow
red,

And they cannot sleep when they go to bed.

And often they see the monster's face,—

They have no peaceful hour ;

And they have aches in every place,

And what was sweet seems sour.

Oh, woe, for that foolish, sorrowful band

Who follow the King of Candy Land ! —Anon.

Sunday on the Farm.

The Iowa Homestead recently invited essays on this subject from its readers, and no fewer than 130 answered. Nearly all of them were in favor of a religious Sunday. They work hard all the week, and must do some work even on Sunday. But if this world is not all, and meant by the eternal Father as a preparatory school to fit us for a higher, a holy Sabbath is the best road to that higher life. It may be the best and happiest day of the week, without being taken up with frivolity. An atmosphere of real or affected frivolity is not the best for the intellectual equipment that we want in this world. As a sample, we quote from the short paper of E. Chybaugh, an Illinois farmer :—

"Among our earliest recollections, before my good father and mother died, we were taught to observe the Sabbath by going to church, reading the Bible and other good books after returning home, studying the catechism and reciting the questions. We did as little physical labor as possible, thus taking time to fill our souls, as it were, with good things. Little did we think of going visiting on the Sabbath, rehearsing our trials through the week, discussing the best methods of farming, or hearing the neighbors' gossip. How each of us so trained should cherish these hallowed memories, as they taught us the true meaning of Christianity, which moulds the character of men into good and useful citizens. Men, like nations, should be thoroughly educated. Education is gained mainly through the instruments of Christianity used by the Pilgrims. The very best of this nation's history remains unwritten, and is known only by those who took part in it. Those who first settled in this country did so for the purpose of establishing freedom of conscience, and they were ready to defend their cause against the strongest powers in existence, except God Almighty. We all think this is the greatest nation, in many respects, on earth ; it is a nation that recognizes genius, no matter from whence it comes, whether from the lowly or the rich. I hope many will agree with me that the nation's greatness comes from good citizenship, and good citizenship is largely dependent on the principles a well-spent Sabbath is sure to foster."

Smith — "You wife is such a brilliant talker, I could listen to her all night !"
Brown—"I often do."

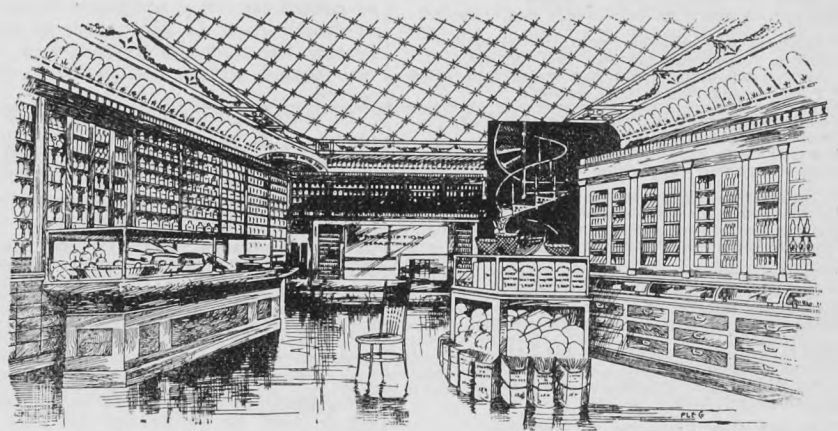
Winter Gowns.

There never has been a season when so many different styles were in fashion, particularly for cloth gowns. It would almost seem impossible for a woman to be unfashionably dressed, provided the sleeves of her gown are small, and the skirt has no particular fulness except at the back. Velvet and cloth are combined in many of the new gowns with very satisfactory results. A favorite combination of color is the light wood-color with dark brown, and a very charming gown of wood-colored cloth, the cloth with a satin finish, is quite odd in design, and is trimmed with a deep brown velvet. The cloth is in an over-skirt or polonaise, while the under part of the skirt and the upper part of the waist and sleeves are of velvet. There are four rows of narrow velvet ribbon outlining the cloth. There is apparently no way of getting either in or out of this costume, but the gown is fastened at the left side with invisible hooks and eyes. The sleeves are small, with a cuff of the velvet

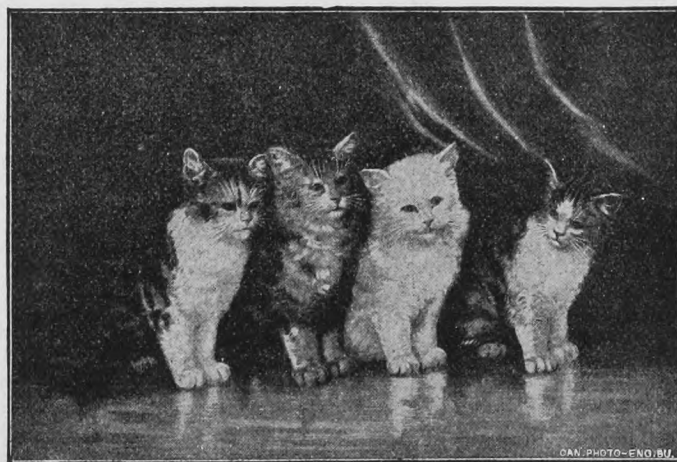
at the wrist, and are cut so as to give the effect of a very long shoulder seam.

A smart cloth gown that is simple in design is made of blue Venetian cloth. The skirt is cut with a circular flounce effect, fitting very closely over the hips. The flounce is not scant, as is generally the case, but, on the contrary, is exaggeratedly full. It is made in clusters of pleats at equal distances apart, and the pleats are only fastened a short distance, leaving the flounce to flare out about the foot. The waist has three rows of tucks put on to give the effect of pleats below a plain square yoke of the deepest blue velvet that is finished with a stock-collar and side tabs. The sleeves are very nearly tight-fitting, but have some fulness at the top, with rows of tucks across the fulness. There is no finish at the wrists and the sleeve is very long. The belt is of fancy metal.—Harper's Bazar.

Tourist—"What is the soil like about here, my man?" Intelligent Native—"Well, zur, when it rains it dew be very dirty!"—Fun.



MESSRS. JOHN F. HOWARD & CO., Chemists and Druggists, who are probably the best known business firm in the Province of Manitoba, have removed to new quarters, in the same block opposite the Post Office, which they have occupied for the last twenty years as a Drug Store, but on McDermot St., a few feet from Main St. The corner will be occupied by the Canadian Pacific Railway Company as a ticket and telegraph office. Howard & Co. will have much more commodious quarters as they will occupy three flats. Their mail trade throughout the Province and the Northwest has become so large that they will devote one department solely to it.



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Ted's Experiment.

He was such an ill-used boy—
Oh, such an abused boy!
He really did feel, in the depths of his heart,
That, could he not cure it,
He could not endure it,
And his mind was made up from his home to depart.

His brothers were selfish,
And "close" as a shell-fish,
Whenever they had any candy or fruit;
His sister would never
(That is, hardly ever.)
Give up their opinions in any dispute.

His father and mother
Were worse than each other
At keeping a fellow from having good times;
Why, should you believe him,
The things that did grieve him
Could never be told in a realmful of rhymes!

Well, one day his brother
Did something or other
So trying that really 'twas too much to bear;
And he vowed in high dudgeon
He'd pack up and trudge on,
Some place to discover where boys could play fair.

But ah! his decision
Was met by derision
From brothers and sisters. "You'll never be missed!"
They cried in a chorus;
"No longer you'll bore us!"
Which astonished him so that he grew very whist.

For he thought there'd be woe
When he said he would go,
And all this hilarity caused him much pain;
And he stood looking down
In a study quite brown
Till a brilliant idea popped into his brain:

"I'll begin this same day,
And I'll give up my way
To my brothers and sisters a week—more or less;
I'll obey in a trice,
And then (won't it be nice?)
When I go there'll be weeping and wailing, I guess!"

All who heard that boy speak
During all the next week
Could hardly believe 'twas himself that they heard;

And his father and mother
Gazed hard at each other
When he cheerfully heeded their very first word.

His brothers divided
With him, and decided
That something amazing had happened to Ted;
While his sisters—dear me!
'Twas amazing to see
How they prized his opinions in all that was said.

And—quite needless to say—
He did not run away;
(Indefinitely he his trip will defer.)
For he found to his joy—
This most fortunate boy—
What agreeable people his relatives were!

—Minnie Leona Upton.

Washing Flannels.

From an article in Good Housekeeping on the washing of flannels, these directions are taken:—In the first place, then, flannels are always to be treated by themselves. They are not to be washed in the manner laid down for the cleansing of cottons, as such a course would simply spoil them. It is also very desirable that a dry, bright day be used, so that as soon as washed the woolen articles may be hung out in the clear air and quickly dried. For these reasons, especially in cold weather, it is not desirable to get the washing on the line too soon. The warm hours of noon-time are the best for putting out the flannels.

To start with, the laundress should take plenty of time for carefully treating the flannels. Haste may be excused in other directions, but not here. There are also a few "nots" in the case which may now be enunciated. Flannels are not to be boiled; they are not to be soaked before washing; they are not to be needlessly left in the water during any part of the process; they are not to be washed in suds which has been used for other goods, or dirty water of any kind; they are not

to be subjected to the action of soda or any other strong chemical.

Clean, soft water is indispensable; if the family supply should, unfortunately happen to be hard water, it should be softened before washing is attempted. For this purpose nothing is better than lye made from wood ashes; but wood ashes are not to be had in every home. In their absence ammonia makes a very good substitute, and should be added in sufficient quantities to soften the water. No harm is done if more be added than is actually needed, especially for white flannels, as it is helpful in the cleansing of the goods. Borax is also satisfactory for softening the water, and either that or ammonia may be added to the suds, to aid the work of the soap. A tablespoonful of ammonia or borax to two gallons of water will be about the right proportion.

The water which is to be used for the suds and that for rinsing should be of as nearly the same temperature as possible, and not hotter than will allow the hands to be borne in it. A greater temperature will have the tendency to fix any dirt stains which may exist, while too low a degree of warmth will hardly give the thorough treatment desired. The suds should be prepared by dissolving a good quality of soap and then stirring it thoroughly into the water, and soap should never be rubbed directly upon the flannel in any stage of the washing. If it is to be applied in any manner in greater strength than comes from the suds, it should be rubbed upon the palms of the hands and then upon the goods. The washboard is not to be used; and the wringer should be run with light pressure, though that method of extracting water from the clothes is less harmful than twisting clothes. A single article should be immersed in the suds, rubbed gently between the hands, soured and drawn through the water, until it is cleared of dirt and stain; then lightly wrung and passed at once to the rinsing water, which is of the same temperature. As soon as all traces of the suds have been removed, it is to be wrung out, as gently as possible, shaken vigorously, and immediately hung up to dry. There should be no cooling between the two waters, and the entire process for each piece, from the beginning of the wash to the finish, ought to be as brief as possible. If this method is followed, the flannels will be pleasing in appearance, texture and color. Where it is practicable, the use of a second suds, before the final rinsing water, is recommended.

Phases of Child Life.

Children pass through a great many phases. Transitions are often trying. Keep these related facts in mind. We sometimes fix a fault by taking too much notice of it. A mistake should not be treated as a wilful sin. A transient awkwardness may be due to rapid growth. A shyness of behaviour, which amounts to a painful timidity, will pass if not accentuated by comment and reproof. This is especially true in regard to speech. Children sometimes use slang; sometimes pick up words and phrases which are worse than slang, but the mother need not be unduly alarmed about this. The boy and girl will speak the language and use the dialect of home, and if the mother possesses the children's entire confidence she will not find it difficult to convince the children that vulgar speech is a thing to avoid.

Mothers will never in the years to come regret a union of mild measures with firm adherence to principle in the home life. But of harshness and too much government they may repent in dust and ashes. —Harper's Bazaar.

Household Recipes.

Omelets—To have a good omelet, for every egg you use take one tablespoonful of water, no more. Beat whites and yolks separately and very light. Add the water to the beaten yolks, and beat again; then gently add whites, or rather cut them in, barely enough to get it slightly mixed. Season to suit taste, pour into a hot, buttered skillet; let it cook a few minutes, turn half over, cook a little longer, and take to table hot. Or, if your oven is hot, cook it in the oven. The secret of having a good omelet is putting it together and cooking. Never use milk instead of water in this recipe.

Graham Bread—Five gills of warm water, one-half cup sugar, two tablespoonfuls of shortening—butter or lard—one cup of yeast. Set the sponge at night with white flour; in the morning, when light, stir in the sugar and shortening and mix with graham flour; let rise again, then mould into loaves. This makes four loaves. I prefer to bake them in a dripping pan, medium sized, as there is less crust. Do not mix the dough as hard as for white bread.

Sweet Potato Biscuit—The following recipe for sweet potato biscuit came my way recently:—Boil, peel and mash one quart of potatoes. Rub them into one quart of sifted flour and one teaspoonful of salt. Work in next one teacup of lard, then add enough sweet milk to make a moderately stiff dough. Roll out to a quarter of an inch thick, cut into cakes and bake in a quick oven. Sprinkling sugar over the top is to many palates an improvement.

Home-Made Candy—Two cups of white sugar, half pint of cream, half cup of chocolate, one teaspoonful of vanilla and lemon essence, which should be put in before taking off the stove, with the whites of two eggs beaten to a consistency of cream, half teaspoonful of vinegar, with a spray of salt and pepper, which will do it no harm. Boil fully three-quarters of an hour on a very slow stove. Pull when a little cool, and cut in small pieces.

Lady Cake—One and one-half cups granulated sugar, one cup luke warm water, two and one-half cups sifted flour, four eggs (whites only), two teaspoons vanilla, two of baking powder; cream the butter and sugar, sift the flour and add half of it and then water alternately, mix well, beat the whites well and add half of them, then the rest of flour; then add flavoring and baking powder and rest of whites; put in the oven quickly and bake for three-quarters of an hour.

Nut Cake—Two cups of sugar, one-half cup butter, one cup milk, two and one-half of flour, three eggs, two teaspoons of baking powder, one pound of nuts (save out twenty-four whole ones), chop the rest and put into the cake, bake in a dripping pan, ice and put on nuts.

Better than Plaster of Paris—Cracks in floors may be permanently filled with papier mache, which is much better for that purpose than plaster of Paris, because it will not crack and crumble. Take a quantity of old newspapers and thoroughly soak them in paste. Make this paste of a half-pound of flour, three quarts of water and a half-pound of alum; mix and boil the paste. Then put in the newspapers and let them soak until thoroughly dissolved into pulp about the consistency of putty. Then with a dull knife force this pulp into the cracks and let it dry; it will become as hard as stone and as tough as leather.

On no account should an ordinary pin be used in dressing a baby. Have buttons and strings whenever possible, and otherwise use safety-pins.

Old Santa Claus in His Den.

Old Santa Claus sat in his den all alone,
With his leg crossed over his knee;
And a comical look peeped out of his eye,
For a funny old fellow was he.
His old cap was twisted and torn
And his wig was all awry
For he'd sat and thought the whole day long,
As the hours went gliding by.
He had been busy, as busy could be
Filling his pack with toys;
He had gathered his nuts and made his sweets
To take to the girls and the boys.
There were dolls for the girls and toys for the boys
And wheelbarrows, horses and drays;
And bureaus and trunks for dolly's new clothes,
All here in his pack he displays.
And candy, too, both twisted and straight,
He had furnished a plentiful store;
And figs and raisins and prunes and dates,
All hung on a peg by the door.
And when all the children are sleeping in bed
Old Santa Claus comes without noise
And round about, round about softly he creeps,
And fills all the stockings with toys.

Christmas Day at Blinkbonny.

Written for The Nor'-West Farmer.

I have been a reader of The Nor'-West Farmer from the beginning, have them all by me now, and have read with strongly sympathetic interest the notes by your travelling correspondents of the doings and successful progress of the pioneer farmers of the Northwest. But, though I read all these with keen interest, I think there is an aspect of northwestern progress that these writers have not touched, or have just barely glanced at. I mean the share we owe to the influence and work of women.

I am sure I take as much honest pride in my stock and fields as most folks. But there are better things to live for than crops and cattle. The building of character, the sentiments that lift us higher in the scale of humanity, and that give a stamp of sterling value to the generation growing up around us, cannot be reckoned up by the same standards as the produce of our fields and stalls. But they do have a value all their own, and because I have had a rich experience of their value, I want to tell what they have done on my own farm at Blinkbonny.

It was on a Christmas eve, sixteen years ago, that I first set eyes on the most precious acquisition I have ever made in a rather prosperous lifetime, and on that account my family and myself observe Christmas with a much deeper feeling than can be done by those who look on it mainly as a pleasant holiday. I belong to a race that do not parade their finest feeling, but that is no reason why I should always keep silent on a topic that lies so near my heart. My honored old Scotch mother and my English wife have been, and are now, of far more account to me than my solid stone house and well-filled barns and well-fenced fields. I write, not in honor of my own women folks only, but of all the true women, whose help has done, and is doing, more to advance and build up the best interests of the northwest than most of us men folks ever think of.

I was born in Huron County, and about 1880, when a lad of 20, first set my heart on the idea of going west to take hold of a prairie farm. On our own farm at home, after 25 years of settlement, there were little more than 50 acres out of 100 cleared, and a big half of that had been cut down by my own hands. My father is a good plowman, few better anywhere, but following a straight furrow in sight of Eildon Hills is a poor preparation for life in an Ontario bush, and of what he did clear before I grew up much had been done by more expert axemen in exchange for the help he could give them in their busy seasons. It was hearing fellows, who

were not his equal at anything else but rough bush-whacking, talking lightly of his "slackness" at what they did so well, that fired me to become, as I did get to be, a first-rate axeman and shot. But, if there was in Canada land as good as our own to be had on very easy conditions, that was easier to work the very first year than our own was after fifteen, I was bound to get there as soon as possible. I don't believe in doing five strokes at anything where two will do, and, therefore, I wanted to go west. There were boys growing up at home to fill my place, and in the spring of 1881 I set out for the land of promise.

I was fortunate from the start. On the boat sailing to Duluth was a young surveyor from Toronto, who had done his last year's work in Central Manitoba, and was to start another summer's work further west. He offered me a job, and said he could well advise me in the selection of a homestead somewhere in the fine district he had worked over last year. I cannot easily forget the rude, mean look of the Winnipeg of that year as we crossed the ferry at the foot of Water street, and contrast it with the Winnipeg of today. It is only such oldtimers as John Renton, of Deloraine, and myself that can appreciate the progress made in this new country from that date till this.

We spent a few days collecting the materials and provisions required for our start, and sailed by the first boat up the river for Grand Valley. Only a few of our modern Manitobans know that Grand Valley was on the north side of the Assiniboine river, a mile east of the present Brandon, and at that time the busiest place west of Winnipeg. I got off at Milford, and, by the help of a sketch furnished by my friendly employer, located the section he recommended. A good part of it was covered by wolf willow, and therefore passed over by earlier land hunt-

ers. There was a spring near the upper corner, a clump of poplar not far off and a pleasant outlook. I resolved that, God sparing me, that should be my future home, and that I would call it Blinkbonny. That is the name of the farm of my father and mother's childhood,—of the old Canadian farm where I myself was raised, and on the third Blinkbonny my own children are now growing up. Don't I think it a sweet and fitting name for places so endeared by old recollections and for the place I have lived 15 so happy years? Not all years of unbroken sunshine, but our darkest clouds may have a silver lining, and a tearful sowing often gives the richest harvest.

That first summer in the west was for me a very profitable one in every way. I was handy with my axe and gun, and made my employer's interests my own. In a month I was his right hand man, with the promise of pay in proportion to my future usefulness. In emergencies I was cook, and fairly successful. I was the oldest in a family of four boys before any girls came, and mother made me almost as handy indoors as I was in the bush. As she remarked pretty frequently, "Can do is easily carried about." And I now find profit in having had to do things as a boy that I was not at all in love with. I suppose that in just such things lies much of the secret of good luck in after life.

When our summer's work was closed, our traps were collected, and I took them with me to my homestead, on which during the winter I proposed doing my first year's duties as a settler. My greatest anxiety was for the hardy ponies of our outfit. But my first few days happened to be fine, and I got them up a kind of shelter of branches covered with straw, that I had to travel several miles to procure. The wolf willows provided long grass and pea vine enough to keep them

GRAND JEWEL STOVES SAVE A THIRD IN FUEL.

In the old-style stove the oven bottom extends to front of stove, so that heat cannot circulate around front of oven at all, so it takes a third more fuel to heat front of oven for baking.

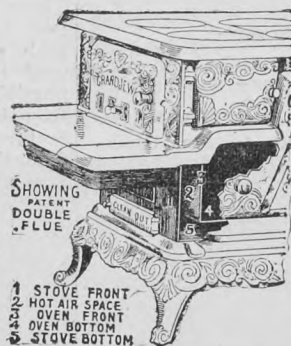
In the New Grand Jewel the oven turns up to the fire box, 3 in. from front of stove (Milne's Pat. See Cut.), forming a perfect flue around the oven, heating it uniformly, making a perfect baker, and saving 33 1/2 per cent. in wood or coal.

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going in food till spring opened.

I lived in the tent, which I had reduced considerably in size, making two trips a week to a splendid bank of tamarac, which supplied building material, still to the fore in the older farm buildings around my district. I put up for myself a modest log shack, 12x24, and a bigger place to be used as a stable later on. My employer had advanced me money in the spring to pay for the entry of my homestead and pre-emption, but the balance still left of my half-year's wages made me feel quite a wealthy man. Dollars had been a very scarce article in the old Huron home, and I could send my mother a present of money enough to buy her a warm covering for winter and still have a good nest egg left for my own future needs. I do not yet quite know whether she or I was proudest of that \$30, but I know it did us both a lot of good.

My second season at surveying was even more prosperous than the first. But the government were shutting down on surveying for a time, and so my master sold his outfit at the place where we closed our season's work early in November. At

two busy years having given me almost no time to read. My box was worth more than I thought when buying them. Scott, Thackeray, Ruskin, Dickens and George Eliot are names to conjure by anywhere, but most of all in a long western winter. I had no very near neighbor, the trail to the settlement beyond me was some hundreds of yards away, and my only chance to cultivate acquaintance was at a little store set up some miles off, where two trails parted. At this store, also a shelf behind the counter for letters and a box for newspapers made up a post office equipment, ample enough then for the requirements of our district. We do things on a different scale now round Blinkbonny.

II.

It was within a couple of days of Christmas that I walked down to the store to buy a few odds and ends and look for letters from the east. The afternoon was calm and bright and beautiful—just the kind of a day my old father would have called a "weathergaw," portentous of a coming storm. Under its genial influence

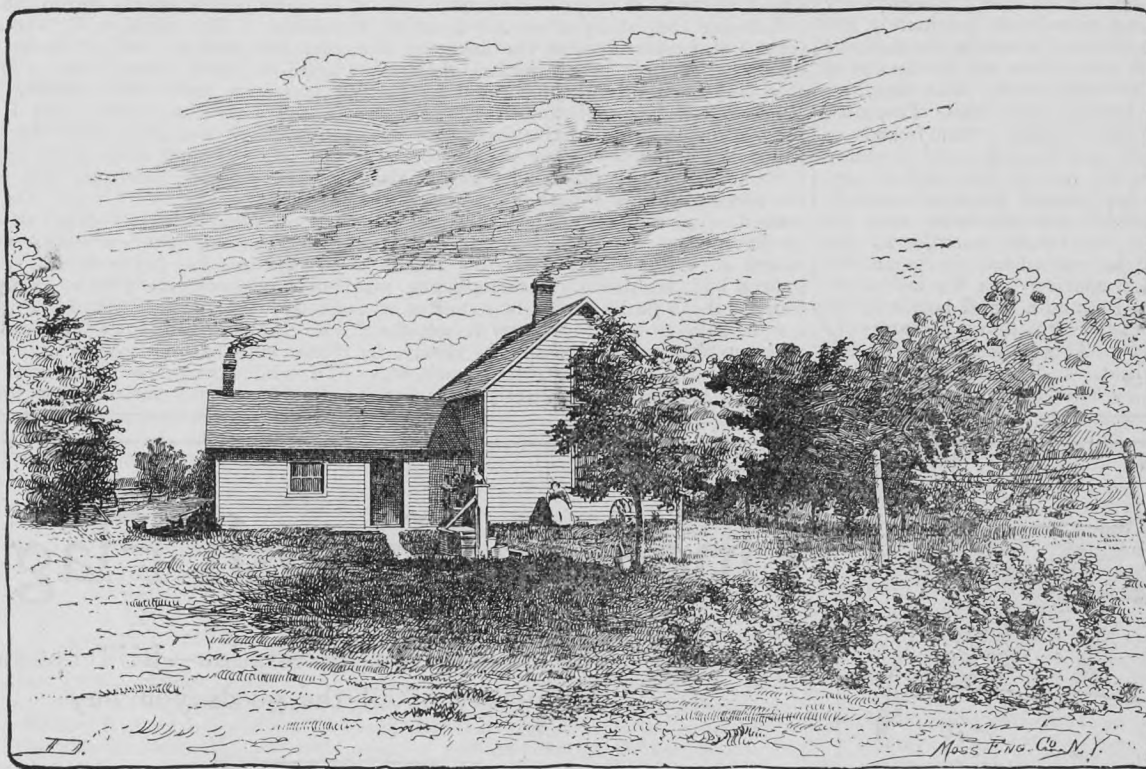
"I'm thinkin'," said a Scotchman next, "he's a dale to be pitied for a' his fine name, he's ane o' thae remittance men, and canna tak' care o' what he does get."

Further remark was cut short by the entrance of a young person, who, as another man whispered, was the daughter of the little appreciated Squire Venner. She wore a thick veil, and, bidding a pleasant good-day to the postmaster and one other man whom she recognized, gathered her mail and departed.

"I guess," remarked the Scotchman, "it'll be the auld story; he'll be gettin' another remittance to hand this Christmas, and he'll manage to get a sup o' drink on the hied o't."

I was told that Squire Venner, as the crowd agreed in calling him, lived a few miles further out on the same trail as myself, and made a very poor pretence at farming. He had been shipped out by his better off relatives, because of his weakness for liquor.

I got home before dark, just as ominous whiffs of snow began to whirl in from the south, and after supper sat down for a hearty night's reading in the "Antiquary."



In the Early Days at Blinkbonny.

Brandon, which meantime had began life as a great business centre, I bought the oxen and small outfit of a city youth from the east, whose first summer's hard work and the terrors of the coming winter had convinced him that farming did not just suit his aspirations. With a long winter before me, and a good wad of dollars in my pocket, I resolved to make my cabin as snug and convenient inside as possible. I therefore bought enough lumber and empty packing-boxes to suit my purpose. With a few carpenter's tools, two months' provisions and a box of books that another discouraged settler cleared out at an auction room one night, I set off once more for my home at Blinkbonny. A fortnight's work on my house made it very cosy and neat, and I could now take things very easy for a time. I had fortunately arranged for a few loads of hay being put up by a settler not far off. The snow came early and deep, and the oxen were scarcely such good rustlers as the ponies. Myself and my cattle being thus well provided for, I could take things easy and turn my attention to books, my last

I tramped briskly and full of spirits. I did not dream that it was a day I should never forget. Whether it is to bring us good or evil, it is well that our future is veiled from us. Mine that day was to be for good in a way I could scarcely have dreamt of. I had got my letters and copies of the Huron Expositor with the home news, and was "passing the time of day" with a dozen or so of the settlers, whom the fine day had drawn together on the same errand as myself, when a rollicking Irishman, who had been taking the liberty of turning over the contents of the newspaper box, on the chance of finding some for his neighbors, broke out in a loud guffaw. Holding up one, he read, in his best brogue, the address:

Llewellyn Adolphus Venner, Esq.,
Venner Hall,
Blank P. O.,
Manitoba,
Canada.

"That's a moighty foine name for a foine gentleman," remarked Dinny, as he tossed the paper back into the box.

I had scarcely begun when I heard a scratching at my door, and opened it to find a very pretty English setter outside. I invited him in, but he whined as if to draw my attention to the road he had left, and wanted me very much to follow him, which I did. The cause of his anxiety was very soon apparent. Through the rising drift I saw what turned out to be the young lady of the afternoon post-office episode, doing her best to shelter, by means of rugs, her father, who lay moaning in great pain. Their sleigh had in some way got overturned, throwing the girl clear out and catching her father under it. The ponies had dragged the sleigh over him, and then fortunately stood still. I found very soon that his leg was broken above the ankle, and that he smelt of whiskey, which I have no doubt was to blame for the accident. Like most weak men, he was very wilful, insisted on driving himself, and probably drew the wrong rein just where a sloping boulder lay close alongside the trail. Anyway, the case was a bad one, and might have been much worse had it happened anywhere else than

near my cabin on such a night.

Unhitching the ponies first thing, I tied them to a poplar sapling, and then turning over the sleigh, tried to get the wounded man inside it, which eventually I did, fixing the wraps around him. The daughter helped me to hitch on the ponies, and we managed to get him inside my cabin, where he soon fainted. The daughter did not scream or make a fuss, as I expected she would, but asked me if I knew what should be further done. The night was now too wild to venture outside again, and I set her to try and restore him to consciousness, while I went to secure the ponies inside my stable, turning out the oxen to the haystack to make room for them.

I did five minutes' very hard thinking while I was tying up those ponies. No outside help was possible, and the nearest doctor over 25 miles away. Desperate troubles need desperate remedies, and I at last resolved to try and set the broken limb myself. In our first year's surveying I had seen my employer put splints on the arm of an Indian, broken by his pony putting its foot into a badger hole and rolling on top of him. I would try the same thing myself, as fortunately the broken bone did not protrude through the skin. I need not go into all the details of that night's anxious work. The daughter steadied the broken limb while I applied the splints, made from the thin boards of a packing box, and fixed them in position. Having done my best as an amateur surgeon, I got my patient fixed as comfortably as possible on a shakedown near the stove, where we could manage to get round him if he needed any further attention. When preparing him for my medical attentions I found a small bottle in his overcoat pocket with about a glass of whisky in it. This I kept out of the daughter's sight. I did not wish to humiliate her by showing that I had any

clue to the cause of her misfortune. After the limb was so far righted, he luckily fell asleep, but frequently moaned. I then turned my attention to the daughter, proposing to make tea for her, but was told they had had it with a friend not far from the postoffice, hence the delay in starting for home, which had cost them so dear. I still made the tea, and to please me she drank a little.

We arranged that as early as I could venture out, I should drive the ponies home and make the mother aware of the cause of delay. I found the place had been, at considerable expense, fitted up so that the log cottage looked like a hunting lodge, with guns, game-bags, and a few skins, the trophies of Squire Venner's sporting achievements. The mother looked peevish and weak, and a big boy rather of the same type, made up the family. I could even then see that the girl had about all the grit in the family, and she certainly needed it. Christmas day is a great institution with the English, and I did not resist the idea of the whole family gathering under my humble roof to celebrate with what heart they might this their first Christmas in a far away land.

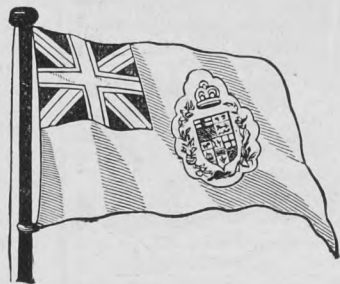
Leaving the family alone for a while, I went out to reconnoitre the scene of the disaster. A box of Christmas delicacies that had been brought for them by their English friend from Brandon was all safe, but kicking around in the snow, for anything else that might have been in the rig, I found three pint flasks of whisky; that, on piecing things together, indicated the reason why Squire Venner was so bent on having his daughter stay for early tea where they did. The obliging Brandon grocer had, by previous arrangement, put four of these flasks in the box, and it was for the sake of an opportunity to get these without the knowledge of his family, he had, contrary to his daughter's wish, stayed over so late. Immediately after lunch

I wrote a letter to Dr. Fleming at Brandon, carefully detailing what steps I had taken for the relief of the broken limb, and asking him to come out without delay to see my patient, in case it required to be re-set. Being mail day, I got the letter off that afternoon, and by prompt return the good doctor told me he thought my work was well done, but he would take the first chance to call our way.

When I got back from the postoffice, I found a very nice meal had been cooked and my table set out in a style much more ornamental than my good mother thought necessary, when we had our rare family feasts at home. The old lady was very fussy about everything, and given at times to whimpering about how different things were here from dear old England. This style of remark evidently grated a good deal upon the daughter, who, though doing all the work, and with equal reason for downheartedness, kept trying to put as bright a face on their misfortune as she could.

I put them all up that night inside the house, but slept myself in the stable under my buffalo robe, as I had done hundreds of times before in less comfortable circumstances. My sleep was sweetened with pleasant dreams, and I woke with the name of Edith on my lips. One day in that brave, quiet girl's society had woke in me a new sensation, and I wondered what there was about her that made me feel so. I had seen girls enough that looked prettier, perhaps, but she was a new sort.

I need not minutely detail the course of events for the next few weeks, while Squire Venner and his ladies were my unwilling but quite welcome guests. Fred we soon packed off to the "Hall" to look after the chickens and dogs—all but the setter, Sam, who became my constant attendant. To while away the time, and divert the attention of my patient from his troubles,



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HULL, - - - CANADA.

we did a little reading. I did my best with Edie Ochiltree, and Miss Venner read in English of a quality I had never heard before, a chapter out of Ruskin. Thanks to our common school, we Canadians, even of the working class, speak a really better style of English than I have ever heard from a native-born Englishman on the same social level, but it is only among the well educated English middle class that I have ever heard what I regard as perfect English speech, and during that first fortnight of our acquaintance I found myself imitating to the best of my ability the accents that were getting to be as music in my ear. Mrs. Venner was perpetually apologizing for their intrusion and the trouble they were giving me. I had only done for them what I was bound to do for any one in like need, and said so, but I secretly felt I was being paid in a way the old lady could not understand, and would have been glad to have kept them longer on the same terms. To sleep in the stable and dream, waking and sleeping, of Edith Venner was an almost intoxicating feeling to me, and when at last the doctor called and pronounced my patient fit for removal to his own home, I felt I had had an inspiration from that Christmas and New Year season that no after influence could ever efface. This expensively educated girl, that had been waited on all her life at home, did her daily round of menial duties as deftly and pleasantly as if she had never been anything else but a maid of all work, while in hours of relaxation doing what she could to make things pleasant all round for her peevish and exacting mother and trying father, whose weakness for drink had been the main source of all their troubles down to this very latest. Whatever of so-called accomplishments she might have had at home, were here modestly concealed, and her budding womanhood was taking on a moral quality and strength that could have been got so well in no other atmosphere than that supplied by her every-day environment of anxiety, humiliation and commonplace work.

It was pleasant weather outside all the time they were with me, and I took care the ladies should have, as often as possible, an afternoon drive, while I did the chores round the house and occasionally chatted with Squire Venner himself. One day I pulled up courage to tell him of my discovery of the contraband whisky flasks, and talk to him pretty plainly of the misery his failing was causing to his family and the humiliation it must be to them to have this generally known. He did not say very much at the time, but I noticed he looked more thoughtful after that, and have now reason to believe that that upset at the corner of my farm, was, under Providence, the means of his deliverance from the debasing habit that had brought him to the present pass. If it was fortunate for him, it was much more fortunate for me. Edith Venner became my inspiration to high-toned moral purpose, to patience under the reverses incident to every position and condition in life, and a heart above all the lesser fret and annoyances which take so much out of the pleasantness of our everyday existence.

After my new found friends had left me, I went on brushing a good breadth of my best land and preparing fencing for an enclosure for my oxen, my work occasionally enlivened by an afternoon call from the ladies at Venner Hall, which, at modest intervals, I returned. I durst not trust myself too much in Miss Venner's society, for I expected that once her father could be trusted to avoid his old haunts and habits, he might be asked to go home to his old place in the firm. There was only a slim chance of his ever getting reasonable fitness for the life of a Manitoba farmer. I kept up my occasional

visits to Venner Hall, getting always a courteous welcome, but the influence of that house told on my most ordinary toil. I was determined that, if we should never stand in any nearer relation, they should respect me for my industry and intelligence, and was under this inspiration able to do more work to better purpose than any other single-handed farmer around. I was looked on as a very lucky fellow, but I counted much more on daily plodding and prudent forecast for my prospects of success than on the divinity too many of us worship.

While the Venner family were my guests in that first month of our acquaintance, I had spent many of my daylight hours clearing the wolf willows off the best bit of my land. Master Fred made a show of helping me while he stayed, but got tired before he was well warmed up, and but for shame would have left me alone. There was on their own place a bit of choice land under easily cleared hazel brush, and I lent him my brush scythe to be used along with a light axe, as he had seen me doing. After a fortnight's work in this fashion, I went there one night to give him an example of live Canadian work in the same line. My one day's work was nearly equal to all he had done, and I told him very plainly he must change his style or be a loafer all his days. I made him leave a fringe of bush all round my clearing, and save it up as a standard for his own after achievement. It is no use mincing matters with soft-hearted young fellows, whose only enthusiasm is for a game of cricket, and my policy told. Three months' work wore off Master Fred's tired feeling a good deal, and his bit of clearing grew pretty respectable in size and quality. I helped him to buy a good yoke of oxen and use them, and assumed enough authority to put more mettle in him than he would ever have got in his own dawdling fashion.

It was an early spring, and we both plowed in a rough and ready way, and got in a good patch of wheat, mine, of course, double the size of his, and other crops as well. Squire Venner's better nature too began to assert itself, and he always helped heartily all he could. His remittances came regularly, but instead of forestalling them, as at first, there was now always a good margin, and I advised laying it out on good young cattle, the kind of stock a tenderfoot has least chance of going wrong with. I was as glad to see them getting on as if the place had been my own, but the improvement I delighted most in was the change so perceptible in the dear girl for whose sake mainly I assumed the stewardship over their farming operations. Her face brightened, her step grew more elastic, the very tones of her voice seemed changed. In the busy season of hay and harvest I changed works with them. They bought a mower, which I used, and we hired a neighbor to cut both our crops. There was little time for Scott and Ruskin on the nights I had to spend at the Hall while this work was going on, but I was happy enough at seeing the pleasant change in the place and its people, to make any amount of work seem easy. I know that a professional romancer would not have written down all these farming details as part of a love story, but life is not all a picnic or a romance, and it is the spice we put into its most ordinary details that gives its greatest zest.

My second Christmas was spent at Venner Hall, and I need hardly say that it was a happy contrast to the circumstances under which we had first been brought together. Even Mamma Venner was genial and self-forgetful, and that ten days was like a chapter from the Arabian Nights to me. I had made no attempt to go further in the good graces of the daughter than

was permissible to a neighbor in good standing, for there were inklings of a change in the position of the Squire that might separate them from me perhaps forever, and I did not feel I had the right to make love to a young lady, whose beauty and rapidly maturing womanhood might well adorn a different sphere. Meantime I took all the happiness I could out of our meetings and left the future in a Higher hand.

Last year's crops on both farms had grown very rank, and I hit on the idea of leaving part unplowed and only harrowing the seed well in. This was a happy thought, and ours were about the only crops cut early enough to escape a frost that caught all the ranker grown grain in our neighborhood. I was thus, not only successful in my cropping, but came to be looked on as a practical authority, whose opinions were well worth listening to. I don't think a little modest self-reliance a great fault in a young man, and my "auld arrant" Scotch mother had always inculcated that either man or woman could not too early learn to "gang their lanes."

I had never so far made any special advances to the girl who was growing every time I met her more near my ideal of a perfect womanhood, but I have still the notion that I got sooner to the point by "hastening slowly" than if I had been more assiduous in my advances.

To quote once again from my worthy mother, "Love winna hide," and my second Christmas at Venner Hall was as the affianced lover of Edith Venner. It had also been decided that Squire Venner's best talents were not in the line of pioneer farming, and he had arranged to return to England early in the new year, leaving Fred on the farm, now doing fairly well in his hands, with Edith as his housekeeper for one year more. Our love was of a sort that could work and wait, and neither of us have ever rued the waiting.

Our fourth Christmas eve was our wedding day, when my Edith took her place as mistress of Blinkbonny. I had built a neat cottage close to the dear old cabin, endeared by so many pleasant memories, but our wedding feast was spread in the old log cabin, which stands there still, with all its fittings untouched. It is now the playroom of our children, who annually invite us to their little family party on Christmas eve, and make us tell once more the story they all know by heart of how their mother and grandfather were first brought to Blinkbonny. Our hearts somehow grow very soft over it, and there are traces of tears in our eyes, but there is no bitterness in those tears. Why should there be?

The new house at Blinkbonny has been made a good deal bigger since my Edith came to it as a bride, and our Christmas dinner is spread on a much bigger board than it covered in those early anxious years; but we can hardly be happier than we then were, for we were doing our duty as best we knew. Is not duty honestly done always a source of true happiness? I have not words to say half I should like to, and therefore borrow from an old song by Scotland's greatest singer the moral to my family history:—

"It ne'er was wealth, it ne'er was wealth

That bought contentment, peace and pleasure.

The bands and bliss o' mutual love,

Oh, that's the chiefest world's treasure."

—◆—◆—◆—
"Be more cheerful; do not worry;
There is time enough to do
Every day the daily duties
That your Father sendeth you,
And to find some little moments
For heart music, fresh and new."

John Hague, Swan Lake, Man., writes: "We think a great deal of The Nor'-West Farmer."

Cranford.

(Continued from Last Issue.)

Martha was beginning to go about again, and I had already fixed a limit, not very far distant, to my visit, when one afternoon, as I was sitting in the shop-parlor with Miss Matty—I remember the weather was colder now than it had been in May, three weeks before, and we had a fire and kept the door fully closed—we saw a gentleman go slowly past the window, and then stand opposite to the door, as if looking out for the name which we had so carefully hidden. He took out a double eye-glass and peered about for some time before he could discover it. Then he came in. And, all on a sudden, it flashed across me that it was the Aga himself! For his clothes had an out-of-the-way foreign cut about them, and his face was deep brown, as if tanned and re-tanned by the sun. His complexion contrasted oddly with his plentiful snow-white hair, his eyes were dark and piercing, and he had an odd way of contracting them and puckering up his cheeks into innumerable wrinkles when he looked earnestly at objects. He did so to Miss Matty when he first came in. His glance had first caught and lingered a little upon me, but then turned, with the peculiar searching look I have described, to Miss Matty. She was a little flustered and nervous, but no more so than she always was when any man came into her shop. She thought that he would probably have a note, or sovereign at least, for which she would have to give change, which was an operation she very much disliked to perform. But the present customer stood opposite to her, without asking for anything, only looking fixedly at her as he drummed upon the table with his fingers, just for all the world as Miss Jenkyns used to do. Miss Matty was on the point of asking him what he wanted (as she told me afterwards), when he turned sharp to me: "Is your name Mary Smith?"

"Yes!" said I.

All my doubts as to his identity were set at rest, and I only wondered what he would say or do next, and how Miss Matty would stand the joyful shock of what he had to reveal, for it was indeed the long lost Peter.

I don't believe Mr. Peter came home from India as rich as a nabob; he even considered himself poor, but neither he nor Miss Matty cared much about that. At any rate he had enough to live upon "very genteelly" at Cranford; he and Miss Matty together. And a day or two after his arrival the shop was closed.

CHAPTER XVI.

It was not surprising that Mr. Peter became such a favorite at Cranford. The ladies vied with each other who should admire him most; and no wonder, for their quiet lives were astonishingly stirred up by the arrival from India—especially as the person arrived told more wonderful stories than Sindbad the Sailor; and, as Miss Pole said, was quite as good as an Arabian Night any evening. For my own part, I had vibrated all my life between Drumble and Cranford, and I thought it was quite possible that all Mr. Peter's stories might be true, although wonderful; but when I found that, if we swallowed an anecdote of tolerable magnitude one week, we had the dose considerably increased the next, I began to have my doubts; especially as I noticed that when his sister was present the accounts of Indian life were comparatively tame; not that she knew more than we did, perhaps less. I noticed also that when the rector came to call, Mr. Peter talked in a different way about the countries he had been in. But I don't think the ladies in Cranford would have considered him such a wonderful traveler if they had only heard him talk in the quiet way he did to him. They liked him the better, indeed, for being what they called "so very Oriental."

One day, as we all sat together, Mr. Peter said, very abruptly, to his sister.

"Do you know, little Matty, I could have sworn you were on the high-road to matrimony when I left England that last time! If anybody had told me you would have lived and died an old maid then, I should have laughed in their faces."

Miss Matty made no reply, and I tried in vain to think of some subject which should effectually turn the conversation; but I was very stupid; and before I spoke he went on—

"It was Holbrook, that fine manly fellow who lived at Woodley, that I used to think would carry off my little Matty. You would not think it now, I daresay, Mary; but this sister of mine was once a very pretty girl—at least, I thought so, and so I've a notion did poor Holbrook. What business had he to die before I came home to thank him for all his kindness to a good-for-nothing cub as I was? It was that that made me first think he cared for you; for in all our fishing expeditions it was Matty, Matty, we talked about. Poor Deborah! What a lecture she read me on having asked him home to lunch one day, when she had seen the Arley carriage in the town, and thought that my lady might call. Well, that's long years ago; more than half a lifetime, and yet it seems like yesterday! I don't know a fellow I should have liked better as a brother-in-law. You must have played your cards badly, my little Matty,

somehow or another—wanted your brother to be a good go-between, eh, little one?" said he, putting out his hand to take hold of hers as she lay on the sofa. "Why, what's this? you're shivering and shaking, Matty, with that confounded window open. Shut it, Mary, this minute!"

I did so, and then stooped down to kiss Miss Matty, and see if she really were chilled. She caught at my hand, and gave it a hard squeeze—but unconsciously, I think—for in a minute or two she spoke to us quite in her usual voice, and smiled our uneasiness away, although she patiently submitted to the prescriptions we enforced of a warm bed and a glass of weak negus. I was to leave Cranford the next day, and before I went I saw that all the effects of the open window had quite vanished. I had superintended most of the alterations necessary in the house and household during the latter weeks of my stay. The shop was once more a parlor; the empty resounding rooms again furnished up to the very garrets.

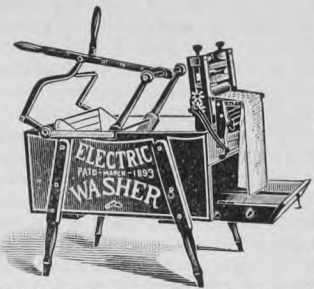
There had been some talk of establishing Martha and Jem in another house, but Miss Matty would not hear of this. Indeed, I never saw her so much roused as when Miss Pole had assumed it to be the most desirable arrangement. As long as Martha would remain with Miss Matty, Miss Matty was only too thankful to have her about her; yes, and Jem too, who was a very pleasant man to have in the house, for she never saw him from week's end to week's end. And as for the probable children, if they would all turn out such little darlings as her god-daughter, Matilda, she should not mind the number, if Martha didn't. Besides, the next was to be called Deborah—a point which Miss Matty had reluctantly yielded to Martha's stubborn determination that her first born was to be Matilda. So Miss Pole had to lower her colors, and even her voice, as she said to me that, as Mr. and Mrs. Hearn were still to go on living in the same house with Miss Matty, we had certainly done a wise thing in hiring Martha's niece as an auxiliary.

I received two Cranford letters on one auspicious October morning. Both Miss Pole and Miss Matty wrote to ask me to come over and meet the Gordons, who had returned to England alive and well with their two children, now almost grown up. Dear Jessie Brown had kept her old kind nature, although she had changed her name and station; and she wrote to say that she and Major Gordon expected to be in Cranford on the fourteenth, and she hoped and begged to be remembered to Mrs. Jamieson (named first, as became her honorable station), Miss Pole, and Miss Matty—could she ever forget their kindness to her poor father and sister?—Mrs. Forrester, Mr. Hoggins, his new wife, who as such must allow Mrs. Gordon to desire to make her acquaintance, and who was, moreover, an old Scotch friend of her husband's. In short, every one was named, from the rector down to Miss Betsy Barker. All were asked to the luncheon; all except Mrs. Fitz-Adam, who had come to live in Cranford since Miss Jessie Brown's days, and whom I found rather moping on account of the omission. Indeed, Mrs. Jamieson rather took it as a compliment, as putting Miss Betty (formerly her maid) on a level with "those Hogginses."

But when I arrived in Cranford, nothing was as yet ascertained of Mrs. Jamieson's own intentions; would the honorable lady go, or would she not? Mr. Peter declared that she should and she would; Miss Pole shook her head and desponded. But Mr. Peter was a man of resources. In the first place, he persuaded Miss Matty to write to Mrs. Gordon, and to tell her of Mrs. Fitz-Adam's existence, and to beg that one so kind, and cordial, and generous, might be included in the pleasant invitation. An answer came back by return of post, with a request that Miss Matty would deliver it herself and explain the previous omission. Mrs. Fitz-Adam was as pleased as could be, and thankful Miss Matty over and over again. Mr. Peter had said, "Leave Mrs. Jamieson to me;" so we did; especially as we knew nothing that we could do to alter her determination if once formed.

I did not know, nor did Miss Matty, how things were going on, until Miss Pole asked me, just the day before Mrs. Gordon came, if I thought there was anything between Mr. Peter and Mrs. Jamieson in the matrimonial line, for Mrs. Jamieson was really going to the lunch at the "George." She had sent Mr. Mulliner down to desire that there might be a footstool put to the warmest seat in the room, as she meant to come, and knew that their chairs were very high. Miss Pole had picked this piece of news up, and from it she conjectured all sorts of things, and bemoaned yet more. "If Peter should marry, what would become of poor dear Miss Matty? And Mrs. Jamieson, of all people!"

When I got back to Miss Matty's I really did begin to think that Mr. Peter might be thinking of Mrs. Jamieson for a wife, and I was as unhappy as Miss Pole about it. He had the proof sheet of a great placard in his hand. "Signor Brunoni, Magician to the King of Delhi, the Rajah of Oude, and the Lama of Thibet," etc., etc., was going to "perform in Cranford for one night only," the very next night; and Miss Matty, exultant, showed me a letter from the Gordons, promising to remain over this gayety, which Miss Matty said was entirely Peter's doing. He had written to ask the signor to come, and was to be at all the expenses of the affair. Tickets were to be sent gratis to as



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many as the room would hold. In short, Miss Matty was charmed with the plan, and said that to-morrow Cranford would remind her of the Preston Guild to which she had been in her youth—a luncheon at the "George," with the dear Gordons, and the signor in the Assembly Room in the evening. But I—I looked only at the fatal words—

"UNDER THE PATRONAGE OF THE HONORABLE MRS. JAMIESON."

She, then, was chosen to preside over this entertainment of Mr. Peter's; she was perhaps going to displace my dear Miss Matty in his heart, and make her life lonely once more! I could not look forward to the morrow with any pleasure; and every innocent anticipation of Miss Matty's only served to add to my annoyance.

So, angry and irritated, and exaggerating every little incident which could add to my irritation, I went on till we were all assembled in the great parlor of the "George." Major and Mrs. Gordon and pretty Flora and Mr. Ludovic were all as bright and handsome and friendly as could be; but I could hardly attend to them for watching Mr. Peter, and I saw that Miss Pole was equally busy. I had never seen Mrs. Jamieson so roused and animated before; her face looked full of interest in what Mr. Peter was saying. I drew near to listen. My relief was great when I caught that his words were not words of love, but that, for all his grave face, he was at his old tricks. He was telling her of his travels in India, and describing the wonderful height of the Himalaya mountains; one touch after another added to their size, and each exceeded the former in absurdity; but Mrs. Jamieson really enjoyed all in perfect good faith. I suppose she required strong stimulants to excite her to come out of her apathy. Mr. Peter wound up his account by saying that, of course, at that altitude there were none of the animals to be found that existed in the lower regions; the game—everything was different. Firing one day at some flying creature, he was very much dismayed when it fell to find that he had shot a cherubim! Mr. Peter caught my eye at this moment, and gave me such a funny twinkle, that I felt sure he had no thoughts of Mrs. Jamieson as a wife from that time. She looked uncomfortably amazed—

"But, Mr. Peter, shooting a cherubim—don't you think—I am afraid that was sacrilege!"

Mr. Peter composed his countenance in a moment, and appeared shocked at the idea, which, as he said truly enough, was now presented to him for the first time; but then Mrs. Jamieson must remember that he had been living for a long time among savages—all of whom were heathens—some of them he was afraid, were downright Dissenters. Then, seeing Miss Matty draw near, he hastily changed the conversation, and after a little while, turning to me, he said, "Don't be shocked, prim little Mary, at all my wonderful stories. I consider Mrs. Jamieson fair game, and besides I am bent on propitiating her, and the first step towards it is keeping her awake. I bribed her here by asking her to let me have her name as patroness for my poor conjurer this evening; and I don't want to give her time enough to get up her rancor against the Hogginsees, who are just coming in. I want everybody to be friends, for it harasses Matty so much to hear of these quarrels. I shall go at it again by and by, so you need not look shocked. I intend to enter the Assem-

bly Room to-night with Mrs. Jamieson on one side and my lady, Mrs. Hogginsees, on the other. You see if I don't."

Somehow or another he did; and fairly got them into conversation together. Major and Mrs. Gordon helped at the good work with their perfect ignorance of any existing coolness between any of the inhabitants of Cranford.

Ever since that day there has been the old friendly sociability in Cranford society; which I am thankful for, because of my dear Miss Matty's love of peace and kindness. We all love Miss Matty, and I sometimes think we are all of us better when she is near us.

(The End.)



W. R. Graham, Stony Mountain, says: "I would sooner miss a meal than miss a copy of The Nor'-West Farmer."

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R. A. Lister & Co., Ltd., Dursley, Eng., the makers of the Alexandra Cream Separators, were awarded a Special Silver Medal at the great dairy show held at the Royal Agricultural Hall, London, for the Lister-Stokes Milk Tester. Their Winnipeg office is 232 King Street.

Fred. Smith, Brandon, Man., agent for Carter's fence machine, writes: "My outfit makes the Page fence when put in the hands of ordinary help on the farm, and farmers can make their woven wire fence of any style or strength as easy as they used to build their rail fences."

GREAT HEALTH RESTORER AND PRE-SERVER.—Dr. Pearson's English Hypophosphorine is highly recommended by the thousands who use it daily with success for neuralgia, nerve pains, sick headaches, heart troubles, Sciatica, rheumatism, seminal weakness, colds, chills, fevers, gripe and its bad effects. As a tonic in these complaints it is valuable, and no family should be without it in case of emergency. Send to D. L. Thompson, Toronto, Ont., for Homeopathic Guide and doctor yourself.

LAND SCRUBBER.—The Hamista Hustler of Oct. 25, 1898, says: "Mr. A. E. Brown gave a test exhibition of his patent Land Scrubber on Friday afternoon last. About 100 farmers and others were present to see the Scrubber work-

ing, and the general expression of opinion was that 'it was just the thing for taking out scrub.' Clumps of willow scrub and poplar trees were taken out slick and clean with one team of horses. An implement of this kind will no doubt be appreciated by farmers who have land to clean of scrub. It certainly does the work well and is a great improvement on the old style of cutting out by hand." A representative of The Farmer had an opportunity to see this implement last week, and we think it is well adapted for its intended use, the tearing up of the roots from scrub land. See advertisement elsewhere in this issue of The Farmer.

A GOOD DISINFECTANT.—Farmers are familiar with Little's Sheep and Cattle Wash as a dip for sheep, but are, as a rule, ignorant of the important fact that it is also one of the best disinfectants and germicides on the market. The manufacturers guarantee that this fluid will destroy all micro-organisms or germs, and thus prevent contagion and putrefaction. As a wash for cattle, horses, pigs, dogs, and poultry it is invaluable, and is sure death to insect life of all kinds. For lice, warbles, mange, cracked heels in horses, ringworm, and all kinds of skin diseases it is a sure cure. For washing ulcers, sores, burns, scalds, bites, etc., it is a most healing and thoroughly disinfectant wash when diluted with water. Its uses are not limited to external applications, but for worms in the throats of lambs and poultry, or for roup in poultry it is an invaluable wash for the mouth and throat. If taken internally it is also good and will soon dislodge worms in the stomach and intestines of all farm stock. Full directions go with each can of the dip. Every farmer should keep some of it on hand, as it is a most valuable remedy for farmers.

A NEWSPAPER ERROR THAT BROUGHT DOWN THE PRICE OF ASTRACHAN JACKETS TO \$2.00.—A blunder, however it may come about, once made on the printed page must go forth to the public as a blunder. It has been alleged that there is no book printed, let it be ever so carefully revised, but contains something in the way of what in the printing trades is known as a typographical error. Some of these errors are very amusing, the change of a letter making the reading ludicrous; others are serious, the omission of a punctuation mark having in, at least, one important case made fresh legislation on the part of government a necessity. In the advertisement of Robt. Simpson Co., Limited, of Toronto, in the November Nor'-West Farmer, an error crept in that must have set furrriers the country over querying where this store bought its furs, that ladies' Astrachan jackets, 36-in. long, could be had for \$3.00, and handsome fur-lined capes for \$2.00. It all came about through a cipher or two being left out. The price of the Astrachan jacket should have read "\$30.00," and the fur-lined capes "\$20.00." Ridiculous as the price would occur to anyone giving a moment's reflection, yet not a few readers of The Nor'-West Farmer took the advertisement at its word, and remitted for the furs advertised at the prices named, to receive in reply a courteous and intelligent explanation of the error. It may be remarked that despite the difference between \$3.00 and \$30.00 and \$2.00 and \$20.00, we have reason to believe that at the correct prices the furs advertised are good value.

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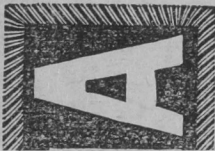
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ONE THOUSAND DOLLAR BILL

United States Treasury.

ED OUTRAM.

thoughts. These slips of dirty paper, authorizing the payment to bearer of large sums of money, what a pity they should be reduced to pulp! One more or less would make no difference to the wealthy nation, but would work wonders for the penniless official who found it hard to make both ends meet. She told herself it was horribly wicked to think of misappropriation, but she could not control her thoughts, and they pictured for her perpetually the staff of the three department reduced to herself, her father and her husband and figured out the fortune they might accumulate by the aid of sticky fingers. While thus musing she was startled by a remark from Mrs. Lawson, as that lady placed before her a head of one thousand dollar bills, which she had been critically examining with a magnifying glass. "That's a big charge from the Ranchers' National—a hundred bills a thousand each. I make them right, you go over them again one by one, and then two packets of fifty each, bind them with a paper band in the old way for me to initial and pass forward."

Mrs. Lawson proceeded with another head, so absorbed in her work that she did not notice how strangely young Mrs. Hackett stared for a moment at the task before her. With the heap of bills lay a paper band that had inclosed them. They came from the Bank of Philadelphia, were old four frayed, and of various denominations of the notes, and the signature, "Wilton Loring, cashier."

Mrs. Lawson vouched for them as correct, and yet Bertha's fingers trembled as she turned them over. She counted of them backward, from 100 to 50 made a packet of them, as instructed, the other half she counted in the old way, beginning one, two, three, and so on. When she came to the third packet she paused one by one, and second half again backward. Then slowly fastened a band around the set.

She was not very smart at present, my dear, remarked the elder lady, observing Bertha's action. "I have to hunt for the bills, but I should never get it if I took so long as you have. I wish that simple check. But maybe reason to find I've passed a wrong one. She added, with a little touch of awe, after thirty-four years of this busy dear, the bills that have passed by Rosina Lawson's hand can be right if she says so."

Mrs. Lawson was rather tetchy, and Bertha, who had been so kind and friendly, Bertha in silence vouches initials on the wrappers of the packets, and this action mollified the lady, for by this taking responsibility for the correctness of the packets she seemed to convey an expression of confidence in her. But some misgiving was in Bertha's mind, for she seemed to herself as the packets were away to the cutting machine to be checked in the offices of the second and the register, "There is just a little."

Our later Edmond Hackett sat at the desk in the department of the second of the treasury, counting and receiving a packet of one thousand dollar bills. They were old four frayed, and of various denominations of the notes, and the signature, "Wilton Loring, cashier."

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register's office to be counted there. Bertha Hackett grew white as death and hot tears sprang in her eyes. "We are ruined!" she cried, "unless—unless—Her glance from the window perceived Caleb Loring entering the house. 'Here is father! He will find out who had the count at the registers.' But the old man knew already. They read it in his face as he confronted them, closing the door whatever hope he had cherished on his homeward way that he might find Bertha unconscious of the storm that threatened was dashed to the ground the moment he perceived her and her husband's agitation. The memory of the evening on the veranda burned in his mind, and in a fury of rage he demanded fiercely:

"Daughter, what infernal thing is this you've been doing? Are you mad? Have you turned this? Is Edmond in it? Or has Wilton—No, no! For God's sake don't tell it is my son!" Then Bertha, to her husband's amazement and dismay, fell down at her father's feet and confessed that she, she yielded to temptation and stolen the missing bill. She hurriedly stated the miraculous chance that had put Edmond in a position to save her, and inferring from her father's knowledge of the affair that the man who had detected the shortage had confided to him his daughter's responsibility, with a view to screening her, besought him to accept the friendly overture.

But the stern Caleb spurned her from him. "I would permit no man's dishonor for the sake of me or mine," he declared. "For what you have done you must pay the penalty. Your impossible combination has actually come to pass. As the counter-check came to your husband in his department, so it has come to me in the registers. It was I myself who caught the short packet which you had signed for."

"Then, father, you alone know?" "I—and one other."

"One other?" repeated Bertha, aghast. "Who in your department should know besides yourself?"

"My chief!" replied the old man, with a face of adamant. "You have reported it knowing that your own child—"

Certainly, fraud or oversight, yours or your brother's; it was not for me to

thundered parent was not without aspirations in the same direction, and the campaign to that end by father and daughter was carried on with such energy and determination that at one time it seemed as if their fondest desire might be realized.

At that time Mr. Chase had established himself in Washington and erected what in those days was a magnificent residence on the northwest corner of Sixth and E streets, one block from the post-office department on the west and one block from the city hall on the east. That was then the fashionable center of Washington.

The Chase mansion was the rendezvous for all the brilliant people in Washington society. Kate Chase as hostess was easily the most popular woman in Washington. She held a court of her own, and the most brilliant woman of her day. The popular verdict declared her

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THE LATE KATE CHASE SPRAGUE

ONE OF THE MOST FAMOUS WOMEN OF AMERICA.

Pen Picture of the Former Social Queen of Washington by One Who Knew Her From Youth—More Fascinating Than Beautiful—Unhappy Marriage and Divorce—The Old Homestead Going to Ruin—Struggling With Poverty—Inextinguishable Magnetism of the Woman.

At Edgewood recently one of the most brilliant social lights that ever shone at the national capital went out when Mrs. Kate Chase Sprague passed away. The death of that remarkable woman turns loose a flood of reminiscences with which are mingled her social triumphs, her hopes, aspirations, successes, joys, sorrows, sufferings, bitter disappointments and final destitution, which an abler pen than this might frame into an intensely dramatic picture.

Her social career in Washington was one continual performance of sensational issues, and opinions differ as to whether her greatest triumphs or her greatest humiliations were the result of overindulgence in the intoxicating influences of the giddy whirl of a social life.

Her death was not entirely unexpected to the few remaining friends who have remained steadfast to her during all her latest trials and tribulations. Her burdens were heavy enough to have shattered even a more robust constitution than that of Mrs. Kate Chase (as she preferred to be called). Her friends have observed the steady decline in this once magnificent specimen of American womanhood, says a writer in the New York Herald, and it was also there that she was forced to drink deeply of the cup of disappointment, endure social ostracism and many times feel the pangs of hunger and neglect. Her proud and haughty nature led her oftentimes to conceal the sad condition of her surroundings when many unscrupulous would only have been too ready to convey to her substantial relief.

A plain straightforward story of her life from the time she became mistress of the governor's mansion at the age of sixteen, when her father was the chief executive of the Buckeye State, until a few days ago, when she died in the dilapidated old home, Edgewood, would read like a thrilling romance.

Much has been written about the beauty and indefinable fascinations of this gifted daughter of the late Chief Justice Salmon P. Chase. Some of her critics disagree as to whether she might properly be regarded as a perfect beauty. Those who remember her when she reigned as queen of official society in Washington, however, are unanimous in their praise of her high intellectual charm, of manner, stately poise of the head and the expressive look from her deep brown eyes, which were shaded by long, drooping lashes, rendered her fascinating and irresistible. She seemed to possess a personal magnetism which affected every one who came under her influence. As a very young girl she displayed wonderful tact and knowledge of national affairs, and while her father was but a figure in Ohio politics she was not only a political star, but a political leader.

The great dream of her life was to see her father, whom she loved and revered beyond all expression, elected chief magistrate of the United States. Her dis-

tingled parent was not without aspirations in the same direction, and the campaign to that end by father and daughter was carried on with such energy and determination that at one time it seemed as if their fondest desire might be realized.

At that time Mr. Chase had established himself in Washington and erected what in those days was a magnificent residence on the northwest corner of Sixth and E streets, one block from the post-office department on the west and one block from the city hall on the east. That was then the fashionable center of Washington.

The Chase mansion was the rendezvous for all the brilliant people in Washington society. Kate Chase as hostess was easily the most popular woman in Washington. She held a court of her own, and the most brilliant woman of her day. The popular verdict declared her

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The attached summary of Minnesota's creamery industry is based on the following returns: From the books of 133 creameries in 20 leading creamery counties; the dairy inspectors' reports of 256 creameries in 37 counties; the state dairy department report of the number of creameries and patrons in 71 counties, and other data from various authorities, mostly at first hand:

SUMMARY OF MINNESOTA'S CREAMERY INDUSTRY.

Number of creameries reporting	673
Number of creamery patrons.....	52,320
Capital invested	\$2,700,000
Cows supplying milk.....	400,000
Milk received in 1898, pounds.....	1,382,718,000
Butter made in 1898, pounds.....	62,849,000
Butter shipped from state in 1898, pounds.....	50,000,000
Gross receipts in 1898.....	\$10,370,000
Operating expenses in 1898.....	\$1,094,500
Paid patrons in 1898.....	\$8,540,400

Since 1884 Minnesota butter has taken first rank in practically all of the important contests in the country. Among the victories of Minnesota butter may be mentioned:

- 1884—Sweepstakes prize medals at New Orleans Cotton Exposition.
- 1893—Sweepstakes prize at World's Fair at Chicago.
- 1896—Sweepstakes at National Buttermakers' Association contest at Cedar Rapids, Iowa.
- 1897—Same at contest in Owatonna and at Topeka, Kan.
- 1898—First rank in four of the five contests at the Omaha Industrial Exposition.

Capital Invested. The amount of capital invested varies widely, as is indicated by the fact that the number of patrons varies from 20 to 100 per creamery. Statistics of the capital invested in creameries are not at hand. The average creamery establishment is placed by builders at a cost of about \$5,-

of New York State to the same market. The refrigerator service leaves Minnesota data enter in as good condition on arrival in New York street as its competing New York rule, which has traveled one-tenth of the distance, and at no greater cost, as a transportation and handling, be-
 great number of larvae, and

Goodhue and Fillmore are the two most prominent counties where the private and stock creamery prevails. It may or may not be due to this difference in the ownership system, that the average milk price at the creameries reporting in Goodhue and Fillmore is 60 cents per cwt., as compared with 65 and 66 cents, res-

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